78224 8-1517 200 358

STIC-Biotech/ChemLib

From: Sent:

Seharaseyon, Jegatheesan

Sent:

Thursday, August 31, 2006 2:05 PM

To:

STIC-Biotech/ChemLib

Subject:

Re: 10/650 365

Hi,

Please search SEQ ID NO: 2 in the commerical database.

Thanks. Seyon Rem 4C61 Box Rem. 4C70.

Searcher:
Searcher Phone:
Date Searcher Picked up:
Date completed:
Searcher Prep Time:
Online Time:

Type of Search

NA#______ AA#:____

S/L:____ Oligomer:_____

Encode/Transl:_____

Structure #:_____ Text:____

Inventor:_____ Litigation:____

Vendors and cost where applicable STN:
DIALOG:
QUESTEL/ORBIT:
LEXIS/NEXIS:
SEQUENCE SYSTEM:
WWW/Internet:
Other (Specify):

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Add97759 rSIFN-co. Adre77080 Consensus Adre7295 Consensus Adw88678 Composite Adx59311 Interfero Adx59356 Recombina Aeb53925 Interfero
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391.565 Million cell updates/sec
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                                                                                                                                                1 MCDLPQTHSLGNRRALILLA......EIMRSFSLSTNLQERLRRKE 167
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Biocceleration Ltd.
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GenCore version
Copyright (c) 1993 - 2006
                                                                          September 1, 2006, 13:18:46
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Maximum Match 100%
Listing first 45 summaries
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24 25 26 27	3 3 5 8 3 3 5 5	3 3 3 4	35 34 38	94 4 4 0 0 11 0	4 4 4 5 4 5

ALIGNMENTS

This sequence corresponds to the consensus IFN-alphaF analogue [Arg22, Ala76, Asp78, Glu79, Tyr86, Tyr90, Leu96, Thr156, Asn157, Leu158] IFN-alphaF. It is encoded by a manufactured gene which was synchesised from at least two linear subunits using a rapid and highly efficient method. The protein and/or antibodies to them can be labelled for use in assays and /or diagnostic test kits. The protein has antiviral activity. See also AAR11532-3. (Updated on 25-MAR-2003 to correct PF field.) Mfd. structural gene - capable of directing synthesis in a host microorganism of consensus human leukocyte interferon. interferon; IFN; gene manufacture; anti-viral agent Snitman DL; Consensus human leucocyte interferon-alphaF #1. Stabinsky Y, AAR11531 standard, protein; 167 AA Claim 3; Page 41; 44pp; English. 90EP-00124236 82US-00375494 83US-00483451 (revised)
(first entry) Alton NK, Peters MA, WPI; 1991-111234/16. N-PSDB; AAQ11283 (AMGE-) AMGEN 25-APR-1983; 06-MAY-1982; 15-APR-1983; 25-MAR-2003 12-JUN-1991 17-APR-1991 BP422697-A. Synthetic. AAR11531; RESULT 1 AAR11533

Sequence 167 AA,

Consensus

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                                                                                                                                                                     61 MIQQTFNLPSTKDSSAAMDESLLEKFYTELYQQLNDLBACVIQEVGVEETPLMNVDSILA 120
                                                                                                                                               61 MIQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILA 120
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                                                                         1 MCDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHE
                                                                                               1 MCDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHE
                                    Gaps
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hepatitis A; Hepatitis B; Hepatitis C; hepatitis; Epstein-Barr virus;
Cytomegalovirus; herpes simplex virus; herpes virus; papovavirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             poxvirus; picornavirus; adenovirus; rhinovirus;
human T cell leukemia virus I; human T cell leukemia virus II;
human T cell leukemia virus III; cancer; skin cancer; liver cancer;
prostate cancer; cervical cancer; Raposi's sarcoma.
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                                                                                                                                                                                                                     Length 167;
                                  Indels
100.0%; Score 861; DB 2;
100.0%; Pred. No. 3.7e-78;
ive 0; Mismatches 0;
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                 Best Local Similarity 100.
Matches 167; Conservative
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N-PSDB; ADQ87758.
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acid sequence of rSIFN-co.

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                                              Length 167;
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                                              100.0%; Score 861; DB 8;
100.0%; Pred. No. 3.7e-78;
iive 0; Mismatches 0;
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100.0%; Pred. No. 3.7e-78;
iive 0; Mismatches 0;
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                                                                                Matches 167; Conservative
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                                                                  Local Similarity
                Sequence 167 AA;
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The present invention relates to a monopegylated consensus interferon
             Disclosure; Fig 1; 84pp; English.
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MCDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHE 60
                                                                                                                                                                                                                               Virucide, interferon, IFN-alpha, interferon alpha-con 1, polyethylene glycol, PEG, hepatitis C virus infection , HCV infection, antiviral.
                                                                                                                                                                                                                                                                                                                     "Optionally modified with a single polyethylene (PEG) moiety"
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                    61 MIQQTFNLPSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILA
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                                                             121 VKKYFQRITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLQERLRRKE 167
                                                                                                                                                                                                         Consensus interferon IFN-alpha con1 sequence, SEQ ID 1.
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                                                                                                                                                                                                                                                                          Unidentified
                                                                                                                                                                                   02-DEC-2004
                                                                                                                                                              ADR87295;
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(CIEN) molecule (M1) comprising a single CIEN polypeptide e.g. interferon alpha-con 1 (the present sequence) and a single polypeptide e.g. interferon molety, where the PEG molety is linear and 30 kD in molecular weight and is directly or indirectly attached through a covalent linkage to a lysine residue in the CIEN polypeptide. The lysine residue is lys32, lys12, lys135, lys135, lys136 or lys166. The monopegylated CIEN molecule is useful for treating hepatisis of virus (HCV) infection since it has superior antiviral activity of IEN-alpha, and has desired pharmacokinetic properties that will allow for a reduced frequency dosing regimen with sustained high enough concentrations of the drug in blood while providing for a reduction in viral load. Also the monopegylated CIEN molecule shows 20-fold greater antiviral activity than PEGASYS (RTM).
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 MIQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 MIQQTFNLFSTXDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMVVDSILA 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MCDLPQTHSLGNRRALILLLAQMRRISPFSCLKDRHDPGFPQEEFPGGNQFQKAQAISVLHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MCDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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                                                                                                                                                                                                                                                                                                                                                                                               Length 167;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VKKYFQRITLYLTEKKYSPCAWEVVRARIMRSFSLSTNLQERLRRKE 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             composite interferon; sars coronavirus infection; infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Use of compound interferon in the treating of SARS disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Composite interferon protein useful for treating SARS.
                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 861; DB 8; 100.0%; Pred. No. 3.7e-78;
                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADW88678 standard; protein; 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUL-2003; 2003CN-00150139.
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                                                                                                                                                                                                                                                                                                  Peg-interferon-alfa2a).
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                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                               Sequence 167 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unidentified
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Sequence 167 AA;
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                                                                                                                                                                                                                                                                                                                                                The present invention provides methods for: treating alphavirus infections; treating hepatitis C virus (HCV) infections; treating West Nile virus infection; reducing liver fibrosis; increasing liver function in an individual suffering liver cirrhosis; increasing liver function complications associated with HCV and cirrhosis of the liver; and reducing viral load, or reducing the time to viral clearance, or reducing from viral load, or reducing the time to viral clearance, or reducing crow viral infection. The methods involve administering effective amounts of an interferon-alpha (IFN-alpha) and pirfenidone or its analog in combination therapy. The IFN-alpha is preferably a consensus interferon, or is selected from IFN-alpha. IFN-alpha2b, and IFN-alpha2c. The combination therapy produces a synergistic effect, a sustained viral response, and reduces the incidence or severity of side effects ordinarily experienced in response to IFN-alpha monotherapy for treatment of alphaviral infection. The present sequence is that of consensus IFN-alpha, a non-naturally-occurring polypeptide that includes those amino acid residues that are common to all naturally-occurring human leukocyte
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                                                                                                                                                           61 MIQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEFTPLMNVDSILA 120
                                                                                                                                                                         61 MIQQTFNLFSTKDSSAAMDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILA 120
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                                                                                                        1 MCDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHE
                                                                                                                               1 MCDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHE
                                                                               Gaps
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                                                                                                                                                                                                             121 VKKYPQRITLYLTEKKYSPCAWEVVRAEIMRSFSLSTWLQERLRRKE 167
                                                                                                                                                                                                                            121 VKKYFQRITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLQERLRRKE 167
                                                   Length 167;
                                                                             Indels
sequence represents the composite interferon protein.
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                                                   Score 861; DB 8;
Pred. No. 3.7e-78;
                                                                             0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                        Interferon-alpha consensus sequence
                                                                                                                                                                                                                                                                                                          ADX59031 standard; protein; 167 AA
                                                   100.0%;
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                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                            Matches 167; Conservative
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                                                  Query Match
Best Local Similarity
                          Sequence 167 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             severe acute respiratory syndrome; recombinant super-compound interferon; rSIRN-co; interferon-alpha; IFN-alpha; genetic engineering; respiratory disease; respiratory tract infection; tumor; hepatitis; cold; influenza virus infection; cough; respiratory-gen; antiinflammatory; hepatotropic; virucide; antitussive; antibacterial; recombinant protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 MIQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLAMNVDSILA 120
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IFN-alpha subtype sequences and which includes, at one or more positions where there is no amino acid common to all subtypes, an amino acid which predominantly occurs at that position.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Treatment of severe acute respiratory syndrome involves administering a recombinant super-compound interferon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a method of preventing or treating severe acut respiratory syndrome by administering a recombinant super-compound interferon (rSIFN-co) or its functional equivalent. rSIFN-co is a new interferon molecule constructed according to conservative amino acids inuman interferon-alpha (IRN-alpha) subtype using generic engineering. rSIFN-co cDNA is designed according to the codon usage of Escherichia oil to achieve high expression of rSIFN-co in E. coli. Also described
                                                                                                                                                                                                                                                                                                                                                                                                   1 MCDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGPPQEEFDGNQPQKAQAISVLHB
                                                                                                                                                                                                                                                                                                                                                                  1 MCDLPQTHSLGNRRALILLAQMRRISPPSCLKDRHDFGPPQEEFDGNQPQKAQAISVLHE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 167;
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                                                                                                                                                                                                                      100.0%; Score 861; DB 9;
100.0%; Pred. No. 3.7e-78;
tive 0; Mismatches 0;
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28-AUG-2003; 2003US-0498F8EP.
28-AUG-2003; 2003US-0498923P.
05-MAR-2004; 2004IN-MU000279.
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                                                                                                                                                                                                                  Query Match
Best Local Similarity 100.0
Matches 167; Conservative
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AEB53925 standard; protein; 167 AA Van Vlasselaer P, 24-FEB-2004; 2004WO-US005594 23-DEC-2003; 2003US-0532695P (first entry) (INTE-) INTERMUNE INC Sequence 167 AA; WO2005067963-A1 neuroprotective 06-OCT-2005 Homo sapiens 28-JUL-2005. Blatt LM, AEB53925; RESULT 8 88888888888888888888888888 셤 ð

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protein engineering; virucide; antiinflammatory; hepatotropic; anti-HIV; gene therapy; cytostatic; viral infection; hepatitis C virus infection; hepatitis B virus infection; HIV infection; hairy cell leukemia; melanoma; nodulare lymphoma; non-Hodgkin's lymphoma; bladder tumor; acquired immune deficiency syndrome; cohns disease; cell differentiation; interferon-alpha.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein sequence.
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                  severe acute respiratory syndrome by directly or indirectly contacting the agent with super-compound interferon or its functional equivalent, (ii) inhibiting severe acute respiratory syndrome virus or cells, (iii) a pharmaceutical compound interferon with the virus or cells, (iii) a pharmaceutical composition comprising the recombinant super-compound interferon capable of inhibiting severe acute respiratory syndrome virus or severe acute respiratory diseases, tumors, hepatitis for treating virus-induced upper respiratory diseases, tumors, hepatitis for treating virus-induced upper respiratory syndrome not only by infections, cold, influenza and cough. The invention provides a method for preventing or treating severe acute respiratory syndrome not only by inhibiting DNA duplication of hepatitis B virus but also the secretion of HBSAG and HBSAG. This sequence represents rSIFN-co protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 MIQOTFNLPSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVETFLMNVDSILA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 MIQQTFNLFSTKDSSAAMDESLLEKFYTELYQQLNDLEACVIQEVGVETPLMNVDSILA 120
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  (preferably virus)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MCDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.0%; Score 861; DB 9; Length 167; Best Local Similarity 100.0%; Pred. No. 3.7e-78; Matches 167; Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 VKKYFORITLYLTEKKYSPCAMEVVRAEIMRSFSLSTNLOERLRRKE 167
are: (1) a method of inhibiting the causative agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Interferon-alpha con1 protein sequence, SEQ ID NO 1.
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The present invention relates to treating (M1) a virus infection in an individual, by administering mono polyethylene glycol (PEG) (30 kD, 11near)-ylated consensus interferon-alpha (IFW-alpha). Also claimed is a method of treating (M2) cancer, by administering monoPEG (30 kD, linear)-ylated consensus IFW-alpha, and treating (M3) a fibrotic disease, by administering a combination of monoPEG (30 kD, linear)-ylated consensus (IFW-alpha, and IFW-gamma in amounts that are effective in the treatment or prophylaxis of the fibrotic disease in the individual. (M1) further or prophylaxis of the fibrotic disease in the individual. (M1) further consorbylaxis of the fibrotic disease in the individual. (M1) further consorbylaxis of the fibrotic disease in the individual. (M3) further involves administering a TNF antagonist is chosen from treating hepatitis C virus infection. (M2) is useful for treating cancer such as adenocarcinoma, embryonal carcinoma, testicular carcinoma, coreogenic carcinoma, chronic lymphocytic leukemia, acute lymphoblastic cleukemia, acute myelogenous leukemia. (M3) is useful for treating a C fibrotic disease, such as idiopathic pulmonary fibrosis, liver fibrosis cor renal fibrosis. (M3) is useful for treating a continue contential librosis, proveders such as idiopathic pulmonary fibrosis, liver fibrosis contential librosis, etc. The present sequence is interferon-alpha contential administry administry of the present sequence is interferon-alpha contential contents.
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Treating virus infection in individual, involves administering monc
polyethylene glycolylated consensus interferon alpha to individual
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100.0%; Pred. No. 3.7e-78;
tive 0; Mismatches 0;
                                                                                                                                               Disclosure; SEQ ID NO 1; 176pp; English.
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Matches 167; Conservative
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MIQQTENLESTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVBETPLANVDSILA 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention describes an oral pharmaceutical composition comprising a protease-resistant, hyperglycosylated polypeptide variant of a parent protein therapeutic in a first unit form, and pharmaceutical excipient suitable for oral delivery. All unit form, and pharmaceutical excipient suitable for oral delivery, and pharmaceutical craining a disease in a patient comprising: administering orally to the patient the oral pharmaceutical composition; a synthetic Type I Interferon receptor polypeptide agonist; a polymucleotide comprising a nucleotide agonist; an expression vector comprising the polymucleotide operably linked to a promoter functional in a eukaryotic cell; and a host cell comprising the polymucleotide or expression vector. The oral pharmaceutical composition is useful for treating a disease, e.g. autoimmune diseases. This is the amino acid sequence of consensus interferon agent infergen.
                                                                                                                                                                                                                                                                                                                                          New oral pharmaceutical composition comprising protease-resistant, hyperglycosylated polypeptide variant of a parent protein therapeutic.
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                                                                                                                                                                                                                                              Blatt LM;
                       08-AUG-2005; 2005WO-US028165.
                                                                     2004US-0600134P
                                                                                         09-AUG-2004; 2004US-0600202P.
24-AUG-2004; 2004US-0604280P.
24-AUG-2004; 2004US-0604415P.
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                                                                                                                                                                                             (INTE-) INTERMUNE INC
                                                                                                                                                                                                                                              Seiwert SD,
                                                                                                                                                                                                                                                                                            WPI; 2006-174126/18
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                                                                     09-AUG-2004;
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AEF91468
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              call ha polypeptide comprising a sequence differing in 1-16 amino acid positions from a fully defined amino acid sequence (SEQ ID No. 1) given to the specification, and comprising one or more substitutions relative to SEQ ID No. 1 chosen from F48A/L, V51P, F55A, F68P, L11A and V14P, where the polypeptide exhibits antiviral activity. The polypeptides of the invention demonstrate virucide, antiinflammatory, hepatotropic, anti-HIV, gene therapy and cytostatic applications and may be useful for reducing the number of copies of a virus in cells infected with the virus, in particular for reducing the level of Hepatitis C virus (HCV) RNA, Hepatitis B virus (HBV) DNA or HIV RNA in the serum of a patient infected with HCV, HBV or HIV. Furthermore, the polypeptides may be utilized for treating hairy cell leukemia, malignant melanoma, collicular lymphoma, non-Hodgkin's lymphoma, bladder cancer, Crohn's current sequence is that of the human interferon-alpha consensus protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a novel isolated or recombinant interferon (IFN)
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                                                                                                                                                                                                                                                                                            Novel isolated or recombinant interferon-alpha polypeptide exhibiting antiviral activity, useful for reducing number of copies of virus in cells infected with virus.
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                                                                                                                                               Kropshofer H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 167;
                                                                                                                                          Patten PA, Viswanathan S, Nissen TL, Vogt A, Kropshofer H
Schumacher R, Fischer S, Seeber S, Grossmann A, Hesse F;
Schaubmar A, Falkenstein R, Koll H, Dembowski M, Adam SS;
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Pred. No. 3.7e-78;
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Best Local Similarity 100.0%;
                         19-MAY-2004; 2004US-0572504P
                                                                     (MAXY-) MAXYGEN INC.
(ROCH-) ROCHE PALO ALTO LLC.
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(MAXY-) MAXYGEN INC
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                                                                                                                                                                                            The invention describes an oral pharmaceutical composition comprising a protease-resistant, hyperglycosylated polypeptide variant of a parent protein therapeutic in a first unit form, and pharmaceutical excipient suitable for oral delivery. All described are: a method of treating a disease in a patient comprising; administering orally to the patient the oral pharmaceutical composition; a synthetic Type I Interferon receptor polypeptide agonist; a polymucleotide comprising a mucleotide sequence encoding a synthetic Type I interferon receptor polypeptide agonist; an expression vector comprising the polymucleotide operably linked to a promoter functional in a eukaryotic cell; and a host cell comprising the polymucleotide or expression vector. The oral pharmaceutical composition is useful for treating a disease, e.g. autoimmum diseases. This is the amino acid sequence of consensus interferon agent infergen.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MCDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNOFQKAQAISVLHE 60
                                                                                                                                   New oral pharmaceutical composition comprising protease-resistant, hyperglycosylated polypeptide variant of a parent protein therapeutic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             immunosuppressive; pharmaceutical; therapeutic; glycosylation; protein therapy; autoimmune disease; immune disorder; infergen.
                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 861; DB 10; Length 167; 100.0%; Pred. No. 3.7e-78; tive 0; Mismatches 0; Indels 0.
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                                                                                                                                                                         Disclosure; Fig 24; 306pp; English.
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                                                                                     Blatt LM
09-AUG-2004; 2004US-0600134P.
09-AUG-2004; 2004US-0600202P.
24-AUG-2004; 2004US-0604280P.
24-AUG-2004; 2004US-060441EP.
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09-AUG-2004; 2004US-0600202P.
24-AUG-2004; 2004US-0604280P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry
                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 100.
Matches 167; Conservative
                                                           (INTE-) INTERMUNE INC
                                                                                                           WPI; 2006-174126/18.
                                                                                                                                                                                                                                                                                                                                                                             Sequence 167 AA;
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Best Local S
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                                                                                    Hong J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            is useful for treating a disease, e.g. autoimmune diseases. This is the amino acid sequence of consensus interferon agent infergen.
                                                                                                                                                                                                                                                                                                                             New oral pharmaceutical composition comprising protease-resistant, hyperglycosylated polypeptide variant of a parent protein therapeutic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MCDLPQTHSLGNRRALILLAQMRRISPPSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human; interferon alpha; IFN; antiviral; immunomodulatory; cytokine; cellular proliferation; autoimmune disorder; inflammatory disorder; viral infection.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 167;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 VKKYPQRITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLQERLRRKE 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VKKYPQRITLYLTEKKYSPCAWEVVRABIMKSPSLSTNLQERLRRKE 167
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 861; DB 10;
illarity 100.0%; Pred. No. 3.7e-78;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human interferon alpha Conl protein SeqID 43,
                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure, Fig 26, 306pp, English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADO32386 standard; protein; 166 AA
                                                                                                                                                Blatt LM
24-AUG-2004; 2004US-0604415P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-NOV-2003; 2003WO-US036682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-NOV-2002; 2002US-0427612P.
12-SEP-2003; 2003US-0502560P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-AUG-2004 (first entry)
                                                                  (INTE-) INTERMUNE INC
                                                                                                                                             Seiwert SD,
                                                                                                                                                                                                                       WPI; 2006-174126/18.
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Matches 167; Conserv
                                                                                                                                                                                                                                                      N-PSDB; AEF91485
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Homo sapiens
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                                                                                  ватсошав.
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           Cho HS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
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                                                                                                                             This invention relates to novel isolated or recombinant interferon (IFN)
alpha proteins and conjugates thereof that comprise attachment groups for
non-protein moieties. Specifically, it provides the nucleic acids that
encode these IFN-alpha proteins and which exhibit enhanced antiviral and
immunomodulatory activities. The present invention describes IFN-alpha
proteins as members of the cytokine family that inhibit a variety of
proteins as members of the cytokine family that inhibit a variety of
cellular proliferation, autoimmune and inflammatory disorders as well as
viral infections. Accordingly, they can be used in the development of
medicaments for inhibiting viral replication in cells infected with a
virus or reducing the number of viral copies, particularly where the
virus is hepatitis C virus (HCV) or hepatitis B virus (HBV). In addition,
it can be used to produce antibodies for the diagnosis and treatment of
viral infections. This polypeptide sequence is a human interferon-alpha
                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 IQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMVDSILAV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                           62 IQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLANVDSILAV 121
                                                                                                                                                                                                                                                                                                                                                                                                          Novel isolated or recombinant interferon alpha polypeptide exhibiting antiviral activity, useful as medicament for inhibiting replication of hepatitis C virus or hepatitis B virus in cells infected with virus.
                                                                                                                                                                                                                                                                                                                                                                                            2 CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM
                                                                                                                                                                                                                                                                                                                                                                     Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122 KKYFQRITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLOERLRRKE 167
                                                                                                                                                                                                                                                                                                                                              Length 166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human interferon-alpha-2a partial polypeptide SEQ ID NO:25
                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                             99.4%; Score 856; DB 8; 1 100.0%; Pred. No. 1.2e-77;
                                                                                                                                                                                                                                                                                                                                                    100.0%; Pred. ....
            Govindarajan S, Viswanathan S;
                                                                                                           Example 2; SEQ ID NO 43; 256pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AED67249 standard; protein; 166 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2004US-0580885P.
2004US-0581175P.
2004US-0581314P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                             Query Match 99.4
Best Local Similarity 100.
Matches 166; Conservative
                                   WPI; 2004-431982/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (AMBR-) AMBRX INC
                                                                                                                                                                                                                                                                                                                       Sequence 166 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-JUN-2004;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JUN-2004;
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            Patten PA,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
AED67249
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 IQOTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILAV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                           New human interferon polypeptide, useful for treating a disease, e.
gigantism, acromegaly, vascular eye disease, macular degeneration,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunosuppressive; pharmaceutical; therapeutic; glycosylation; protein therapy; autoimmune disease; immune disorder; infergen; interferon alpha 14; IFN-alpha 14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 99.4%; Score 856; DB 9; Length 166; Best Local Similarity 100.0%; Pred. No. 1.2e-77; Matches 166; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KKYFQRITLYLTEKKYSPCAWEVVRABIMRSFSLSTNLQERLRRKE 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Infergen-IFN-alpha 14 signal peptide fusion protein.
                                                                                                                                                                                                                                                                      Example 11; SEQ ID NO 25; 129pp; English.
Wilson TE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ź
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seiwert SD, Blatt LM;
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09-AUG-2004; 2004US-0600202P.
24-AUG-2004; 2004US-0604280P.
24-AUG-2004; 2004US-060415P.
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   наув А,
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Daniel TO,
                                                                   WPI; 2005-777263/79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2006020580-A2
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us-10-650-365a-2.rag

New oral pharmaceutical composition comprising protease-resistant, hyperglycosylated polypeptide variant of a parent protein therapeutic.

Disclosure, Fig 30; 306pp; English.

The invention describes an oral pharmaceutical composition comprising a protesse-resistant, hyperglycosylated polypeptide variant of a parent protesse-resistant, hyperglycosylated polypeptide variant of a parent unitable for oral delivery. Also described are: a method of treating a disease in a patient composition; a synthetic Type I interferon receptor polypeptide agonist; a polymucleotide comprising a nucleotide sequence encoding a synthetic Type I interferon receptor polypeptide agonist; an expression vector comprising the polymucleotide operably linked to a promoter functional in a eukaryotic cell; and a host cell comprising the polymucleotide operably linked to a promoter functional in a eukaryotic cell; and a host cell comprising the polymucleotide operably linked to a promoter functional in a eukaryotic cell; and a host cell comprising the polymucleotide of comprising the amino acid sequence of consensus interferon agent infergen fused to the amino acid sequence of consensus interferon agent infergen fused to the signal peptide from human interferon alpha 14 (IFN-alpha 14).

Sequence 189 AA;

99.4%; Score 856; DB 10; Length 189; 100.0%; Pred. No. 1.4e-77; tive 0; Mismatches 0; Indels Query Match
Best Local Similarity 100.0°
Matches 166; Conservative

ö 0; Gaps

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122 KKYPORITLYLIEKKYSPCAWEVVRAEIMRSFSLSTNLQERLRRKE

144 KKYFQRITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLQERLRRKE 189

Search completed: September 1, 2006, 13:22:10 Job time : 197 secs

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n 5.1.9 : Biocceleration Ltd.		9; Search time 39 Seconds (without alignments) 412.005 Million cell updates/sec	EIMRSFSLSTNLQERLRRKE 167		sen	parameters: 283416				predicted by chance to have a score of the result being printed, total score distribution.	BS	Description	alpha-		interieron-alpha-F interferon alpha-I		. B.	•	interferon alpha-5 interferon alpha-T		incerreron-alpha-J interferon alpha-J			incerieron alpha-1 interferon alpha-2	interferon alpha-I	interferon alpha-I	interferon alpha-B interferon alpha-4	erferon	interieron alpha-1 interferon alpha-I	eron al
Core version 1993 - 2006	ng sw model	36, 13:22:2	VLILLA	ext 0.5	16763 residues	chosen para		18 .008 5 summaries		results to the of the	SUMMARIES	QI.	E25843	IVHUA7	184464 IVHUF	D25843 IVHI14B	152347	I56314 I51970	IVHUA5	IVHUA9	153102 F25843	IVHUAO	178570	IVHUAL IVHUA2	IVHU16	IVHUI8	C25843 TVHIIA4	IVHOA4	IVHOA2 IVHOA1	IVHOA3
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Copyright (earch,	ber 1,	650-36 PQTHSL	0.0	seda,	satisfying	2000000000	um Match um Match ng first		numbe n or anal		Length	167	188	189	167	189	176	189	183	167	189	165	188	189	189	162	184	184	184
Сору	protein s	September	US-10- 861 1 MCDL	BLOSUM6 Gapop 1	283416	hits	length: length:	Minimum Maximum Listing	PIR 80: 1: pirl 2: pir2 3: pir3	. is the meater than erived by a	م م	Match	93.4		92.0								96.9						77.77	77.7
	ein - pr	,	score:	table:	<u>.:</u>	number of	DB sed DB sed	ssing		Pred. No. is score great and is deriv		Score	804	801	799	797	786	785	776 768	767	759	754	747.5	744.5	744	734	719	674	640 669	w
	OM prote	Run on:	Title: Perfect Sequence	Scoring	Searched	Total nu	Minimum Maximum	Post-proce	Database	P. P. B.	Reall	No.		4 m •	4. €	9 1	- 60 (10	112	13	15	16	18	5 P	21	33	2 C	5 <u>6</u>	28	29

interferon alpha 21 - human
Cispecies: Homo sapiens (man)
Cispecies: Totalis (man)
Totalis: Totalis (man)
Totalis: Totalis (man)
Totalis: Novel human leukocyte interferon subtype and structural comparison of alpha inn
A; Reference number: IS6313; MUID:85056523; PMID:6548765
A; Accession: IS6313
A; Molecule type: mANA
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: mANA
A; Residues: 1-181 < RES>
A; Cross-references: UNIPROT:Q14608; UNIPARC:UPI00006E7D8; GB:M28586; NID:G184636; PIDN
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interferon alpha-1 interferon alpha-2 interferon alpha-2 interferon alpha-1 interferon alpha-1	ALIGNMENTS E25843 interferon alpha-F - human N'Alternate names: human leukocyte interferon (IFN) C;Species: Homo sapiens (man) C;Date: 16-Aug-1988 #sequence_revision 16-Aug-1988 #text_change 09-Jul-2004 C;Accession: E25843 R;Ohara, O.; Teraoka, H. R;Ohara, O.; Teraoka, H. A: Spess Lett. 211, 79-82, 1987	1,3803589 compared with conceptual translation 0000176711	re 804; DB 2; Length 167; d. No. 4.4e-65; Mismatches 7; Indels 0; Gaps 0;	MCDLPQTHSLGNRRALILLAQMRRISPFSCLKORHDFGFPQRBFDGNQFQKAQAISVLHE 60 	MIQOTENLESTKOSSAAWDESLLEKFYTELYOOLNDLEACVIOEVGVEETPLANVDSILA 120
823709 IVMSA5 IVBOII IVBOII IVBOID IVBOID IVBOID IVBOIC IV	ALIGNMENTS kocyte interferon (.) e_revision 16-Aug-1 of human leukocyte	87105954 ot shown 8; UNIPA	Score 804; Pred. No. 3; Mismatc	AOMRRISP AOMGRISP	DESLLEKFY :: EQSLLEKFS
044446446646464	ocyt _rev	Ce n			AAWD
1 1 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	man n leuk (man) quence (1987	sequences properties of alpho	93.4%; larity 94.0%; Conservative	LGNRRA LGNRRA	STKOSSI STKOSSI
26 6 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-F - human s: human 1 sapiens (m 988 #seque 843 aoka, H. 78-82, 198	er: A91 843 c acid mRNA 7 < OHA> es: UNI	ilarity Conser	OLPOTHS OLPOTHS	OOTFNLP OOTFNLP
628 569 569 569 562 562 562 573 573 573 573 573 573 573 573	n alpha-F Le names: : Homo sag 6-Aug-1986 on: E25845 0.; Teraol	ce numb on: E25 nuclei s type: 3: 1-16 bference	atch sal Sim 157;	н н Д—Д	61 MI
0 E E E E E E E E E E E E E E E E E E E	RESULT 1 E25843 interferon alpha-F - human N'Alternate names: human leukocyte interferon C;Species: Homo sapiens (man) C;Date: 16-Aug-1988 #sequence_revision 16-Aug- C;Accession: E25843 R;Ohara, O.; Teraoka, H. FEBS Lett. 211, 78-82, 1987 A;Title: Anomalous behavior of human leukocyte	A; Accession: E25843 A; Accession: E25843 A; Batus: nucleic acid sequence not shown; not A; Molecule type: mRNA A; Molecule type: mRNA A; Kossidues: 1-167 < CHA> A; Cross-references: UNIPROT:Q14608; UNIPARC:UPI C; Superfamily: interferon alpha	Query Match Best Local Similarity Matches 157; Conser	පි පි	\$ G

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C;Accession: A01832
R;Goeddel, D.V.; Leung, D.W.; Dull, T.J.; Gross, M.; Lawn, R.M.; McCandliss, R.; Seebur: Rsture 290, 20-26, 1981
A;Title: The structure of eight distinct cloned human leukocyte interferon cDNAs.
A;Reference number: A93249; MUID:81148795; PMID:6163083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Molecule type: mRNA
A;Residues: 1-189 <RE2>
A;Cross-references: UNIPARC:UP1000002C35A; EMBL:X00145; NID:g32724; PIDN:CAA24980.1; PI
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A;Residues: 1-189 «GOE>
A;Cross-references: UNIPROT:P01568; UNIPARC:UP10000047762; GB:V00540; GB:J00212; NID:g3.
A;Note: eight classes of interferon alpha clones were identified; this sequence is deri
                  C;Species: Home sapiens (man)
C;Species: Home sapiens (man)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 09-Jul-2004
C;Accession: 184464; 137583
C;Accession: 184464; 137583
R;Gren, E.Y.; Berzin, V.M.; Tsimanis, A.Y.; Apsalon, U.R.; Vishnevskii, Y.I.; Yansone, A.; Lozha, V.P.; Kavsan, V.M.; Etimov, V.A.; Sverdlov, B.D.
A; Lozha, V.P.; Kavsan, V.M.; Etimov, V.A.; Sverdlov, B.D.
A;Title: A new type of leukocytic interferon.
A;Reference number: 137583
                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: UNIPROT:P01568; UNIPARC:UP1000002C35A; GB:M12350; NID:9184598; PIDN
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NiAlternate names: HuIRN-alpha-I-F; LeIF F; type I interferon
C;Species: Homo sapiens (man)
C;Date: 01-Sep_1981 #sequence_revision 01-Sep-1981 #text_change 09-Jul-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           122 KKYPQRITLYLTEKKYSPCAWEVVRABIMRSFSLSTNLQERLRRKE 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 189;
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Fi24-189/Product: interferon alpha-I-F #status predicted <MAT>
F;24-122,52-162/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 801; DB 2;
Pred. No. 9.6e-65;
2; Mismatches 7,
                                                                                                                                                                                                                                                       A;Accession: 184464
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary; translated from GB/EMBL/DDBJ
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A;Map position: 9p22-9p22
C;Superfamily: interferon alpha
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94.6%;
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C;Superfamily: interferon alpha
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Matches 156; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                               A; Accession: 137583
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C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 01-Sep-1981 #sequence_revision 29-Jan-1999 #text_change 09-Jul-2004
C;Date: 01-Sep-1981 #sequence_revision 29-Jan-1999 #text_change 09-Jul-2004
C;Accession: 843716; A01833
N;Accession: 813716; August A01833
N;Accession: 813716; MulD:86037205; PMID:4057246
A;Accession: 843716
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nolecule type: mRNA
;Residues: 57-189 <GOE>
;Cross-references: UNIPARC:UPI0000141F4A; GB:V00541; GB:J00213; NID:g32718; PIDN:CAA238
;Note: eight classes of interferon alpha clones were identified; this sequence is deriv
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                                                                                                                  Length 181;
                                                                                                                  Score 801; DB 2; Length 18 Pred. No. 9.1e-65; 2; Mismatches 7; Indels
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C;Superfamily: interferon alpha
C;Kaywords: antiviral; cytokine; leukocyte
F;1.23/Domain: signal sequence #status predicted <8IG>
F;24-189/Product: interferon alpha-5 #status predicted <MAT>
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91.0%; Pred. No. 9.6e-65;
tive 9; Mismatches 6;
Cross-references: GDB:136360; OMIM:147584
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                                                                                                                     Query Match
Best Local Similarity 94.6%;
Matches 157; Conservative
                        A; Map position: 9p22-9p22
C; Superfamily: interferon alpha
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Residues: 1-189 <HEN>
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Query Match

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C,Accession: 152347 M. M. M. McMullen, G.L.; Macreadie, I.G.; Murphy, M.; Niabet, I R; Linnane, A.W.; Bellharz, M.W.; McMullen, G.L.; Macreadie, I.G.; Murphy, M.; Niabet, I R; Linnane, A.W.; Bellharz, McMullen, Int. 8, 725-732, 1984 A; Title: Nucleotide sequence and expression in B. coli of a human interferon-alpha gene A; Reference number: 152347; MUID: 84307815; PMID: 6089830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cross-references: UNIPROT:P01571; UNIPARC:UP1000002С74В; GB:M71246; NID:g184572; PIDN
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K; Lund, B.; von Gabain, A.; Edlund, T.; Ny, T.; Lundgren, B.
J. Interferon Res. 5, 229-238, 1985
A; Title: Differential expression of interferon genes in a substrain of Namalwa cells.
A; Reference number: IS6314; MUID:85235859; PMID:4008999
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61
                               24 CDLPQTHSLGNRRALILLAQMGRISHFSCLKDRHDFGFPEEEFDGHQFQKTQALSVLHEM
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C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
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C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
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CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQERFDGNQFQKAQAISVLHEM
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                                                                                                                                                                                                                                                                       144 RKYPQRITLYLTEKKYSPCAMEVVRABIMRSLSFSTNLQKRLRRKD 189
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                                                                                                                                                                                                                                        122 KKYPQRITLYLTEKKYSPCAWEVVRAEIMRSPSLSTNLQERLRRKE 167
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 786; DB 2; Length 189;
Pred. No. 2.1e-63;
8; Mismatches 6; Indele
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91.2%; Score 785; DB 2; Length 176;
Best Local Similarity 91.0%; Pred. No. 2.4e-63;
Matches 151; Conservative 8; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A,Status: preliminary, translated from GB/EMBL/DDBJ
A,Molecule type: mRNA
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A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                  interferon alpha-M1 precursor - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             interferon-alpha - human (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
91.3%;
Best Local Similarity 91.6%;
Matches 152; Conservative
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C,Superfamily: interferon alpha
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C,Superfamily: interferon alpha
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A;Cross-references: UNIPROT:P05014; UNIPARC:UPI0000047761; GB:X02955; NID:g32656; PIDN:C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: nucleic acid sequence not shown; not compared with conceptual translation A;Molecule type: mRNA
A;Residues: 1-167 <OHA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           interferon alpha-I-4b precursor - human
NiAlternate names: HurrN-alpha-I-4b; type I interferon
C;Species: Homo sapiens (man)
C;Date: 28-Dec-1987 #sequence_revision 28-Dec-1987 #text_change 09-Jul-2004
C;Accession: E23753
C;Accession: E23753
C;Accession: F23753
A;Henco, K; Broobius, J.; Fujisawa, A.; Fujisawa, J.I.; Haynes, J.R.; Hochstadt, J. Mol. Biol. 185, 227-260, 1985
A;Title: Structural relationship of human interferon alpha genes and pseudogenes.
A;Reference number: A92916; MUID:86037205; PMID:4057246
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                               84 IQQTFNLFSTKDSSATWEQSLLEKFSTELNQQLNDMEACVIQEVGVEETPLMNVDSILAV 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 MIQQTFWLFSTKDSSAATDETLLDKFYTELYQQLNDLEACMMQEVGVEDTPLMNVDSILT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 MIQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILA 120
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                                                                                                                                                                                                                                                                                                                                                           N,Alternate names: human leukocyte interferon (IFN)
C,Species: Homo sapiens (man)
C,Date: 16-Aug-1988 #sequence_revision 16-Aug-1988 #text_change 15-Jun-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MCDLPQTHSLSNRRTLMIMAQMGRISPFSCLKDRHDFGFPQEEPDGNQFQKAQAISVLHE
      IQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILAV
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                                                                                                                                                                                                                                                                                                                                                                                                                   C;Date: 16-Aug-1988 #sequence_revision 16-Aug-1988 #text_change 15-Jun C;Accession: D25843
K;Ohara, O.; Teraoka, H.
FSBS Lett. 211, 78-82, 1987
A;Title: Anomalous behavior of human leukocyte interferon subtypes on A;Reference number: A91374; MUID:87105954; PMID:3803589
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 122 KKYPORITLYLTEKKYSPCAWEVVRAEIMRSPSLSTNLOERLRRKE 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 92.6%; Score 797; DB 2; Length 167; Best Local Similarity 91.0%; Pred. No. 1.9e-64; Matches 152; Conservative 9; Mismatches 6; Indels
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;Map position: 9p22-9p2
;Superfamily: interference alpha
;Reywords: antiviral
;1-23/Domain: signal sequence #status predicted <SIG>
;3-1-39/Domain: interference alpha I-4b #status predicted <MAT>
;2-122,52-162/Disulfide bonds: #status predicted
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Pred. No. 1.4e-63;
8; Mismatches 6
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C;Superfamily: interferon alpha
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91.5%;
Best Local Similarity 91.6%;
Matches 152; Conservative
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Genetics:

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interferon alpha-I-14 precursor [validated] - human
N;Alternate names: HuIRN-alpha-I-14; lambda-2-h; type I interferon
C;Species: Homo sapiens (man)
C;Accession: A92916; Man9
C;Accession: A92916; M94255; B93249; PC2203; A01834; C23753
R;Henco, K.; Brosius, J.; Fujtaswa, A.; Fujtaswa, J.I.; Haynes, J.R.; Hochstadt, J.; Kon
A;Title: Structural relationship of human interferon alpha genes and pseudogenes.
A;Reference number: A92916; MUID:86037205; PMID:4057246
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A;Title: DNA sequence of two closely linked human leukocyte interferon genes.
A;Reference number: A94255; MUID:81201124; PMID:6165082
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A; Hille: The structure of eight distinct cloned human leukocyte interferon cDNAs.
A; Reference number: A93249; MUID:81148795; PMID:6163083
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Residues: 1-174, F',176-189 <GOE>
Cross-references: UNIPARC:UPI0000047764, GB:V00542; GB:J00214; NID:g32720; PIDN:CAA238
Note: a variant sequence differs from that shown in having 175-Phe, 182-Lys, and 184-C
A, Note: eight classes of interferon alpha clones were identified; this sequence is deriv
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                                                                                                                                                                                                                                                                                                                                                                                                               Length 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9; Indels
                                                                                                                                                                                                                                      C, Keywords: leukocyte
P;1-23/Domain: signal sequence #status predicted <SIG>
P;24-189/Product: interferon alpha-5 #status predicted
P;24-122,52-162/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                   Score 776; DB 1;
Pred. No. 1.7e-62;
7; Mismatches 9
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                                                                                                         A;Cross-references: GDB:136362; OMIM:147565
A;Map position: 9p22-9p22
C;Superfamily: interferon alpha
C;Keywords: leukocyte
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A;Residues: 'X',25-43 <SHI>
A;Crose-references: UNIPARC:UP1000017365B
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Best Local Similarity 90.4<sup>1</sup>
Matches 150; Conservative
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A;Map position: 9p22-9p22
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Residues: 1-189 <HEN>
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Residues: 1-189 <LAW>
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                                                                                      A;Gene: GDB:IFNAS
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C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 01-981 #sequence_revision 01-Sep-1981 #text_change 09-Jul-2004
C;Accession: A60937; A01830
R;Bartholomew, C.; Windass, J.D.
J. Interferon Res. 9, 407-417, 1989
A;Title: Identification of a functional allele of a human interferon-alpha gene previous
A;Reference number: A60937; MUID:89328015; PMID:2526839
A;Article: Identification of a functional allele of a human interferon applies DNA
A;Reserences number: A60937
A;Residues: 1-189 cBAR>
A;Residues: 1-189 cBAR>
A;Residues: 1-189 cBAR>
A;Residues: 1-189 cBAR>
A;Note: this genomic sequence, SWIII.1A, encodes a functional allele for alpha interference and is a pseudogene
R;Goeddel, D.V.; Leung, D.W.; Dull, T.J.; Gross, M.; Lawn, R.M.; McCandliss, R.; Seeburg
Nature 290, 20-26, 1981
A;Reterence number: A;Atlete: The structure of eight distinct cloned human leukocyte interferon cDNAs.
A;Reference number: A;Areference number: A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Risaveliev, V.I.; Zlochevsky, M.L.; Sorokin, A.V.; Naroditskaya, V.A.; Bolotin, A.P.; De Antibiot. Med. Biotekhnol. 31, 592-596, 1986
Antibiot. Med. Biotekhnol. 31, 592-596, 1986
A;Title: (Cloning and the determination of the nucleotide sequences in 2 genes of human A;Reference number: 151970; MUID:87024453; PMID:3767336
A;Accession: I51970
A;Accession: preliminary; translated from GB/EMBL/DDBJ
A;Retule type: mRNA
A;Retule ype: mRNA
A;Retule ype: mRNA
A;Retule ype: mRNA
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A;Residues: 1-189 <GOE>
A;Cross-references: UNIPARC:UPI0000047765; GB:V00551; GB:J00209; NID:g32748; PIDN:CAA238
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                                                                                                                                                                                                   11 IQQTFNLFSTEDSSAAWEQSLLEKFSTELXQQLNNLEACVIQEVGMEETPLMNEDSILAV 130
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               61
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C,Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 16-Jul-1999
                                                      11 CDLPQTHSLGNRRALILLAQMGRISPFSCLKDRHDFGLPQEEFDGNQFQKTQAISVLHEM
               CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM
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90.4%; Pred. No. 7.4e-63;
tive 8; Mismatches 8; Indels
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Matches 150; Conservative
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Best Local 5
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C;Accession: I53102
R;Cohen, S.; Velan, B.; Grosfeld, H.; Shalita, Z.; Leitner, M.; Shafferman, A.
Dev. Biol. Stand. 60, 111-122, 1985
A;Title: Cloning, expression and biological activity of a new variant of human interferc
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R;Ohara, O.; Teraoka, H.
RsBS Lett. 211, 79-82, 1987
A;Title: Anomalous behavior of human leukocyte interferon subtypes on polyacrylamide gel A;Reference number: A91374; MUID:87105954; PMID:3803589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: UNIPROT:P01567; UNIPARC:UP10000161BA7; GB:M34913; NID:g184614; PIDN:
C;Superfamily: interferon alpha
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                        84 IQQTFNI.FSTEDSSAAWEQSLLEKFSTELYQQLNNI.RACVIQEVGMEETPLMNEDSILAV 143
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IQQTFNLFSTXDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILAV 121
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NjAlternate names: human leukocyte interferon (IFN)
C:Species: Homo saptens (man)
C:Spate: 16-Aug-1988 #sequence_revision 16-Aug-1988 #text_change 15-Jun-1996
                                                                                                                                                                                                                                                                                                                     C;Species: Homo sapiens (man)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
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88.6%; Pred. No. 4.6e-61;
ive 10; Mismatches 9;
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A;Cross-references: UNIPARC:UP10000176718
C;Superfamily: interferon alpha
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Best Local Similarity 88.0%
Matches 147; Conservative
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A; Residues: 1-56, H', 58-189 <MIZ>
A; Cross-references: UNIPARC: UPI0000052AF9; GB:M11026; NID:G184612; PIDN:AAA52725.1; PID:
R; Zoon, K.C.; Miller, D.; Bekisz, J.; zur Nedden, D.; Enterline, J.C.; Nguyen, N.Y.; Hu,
J. Bol. Chem. 267, 15210-15216, 1992
A; Title: Purification and characterization of multiple components of human lymphoblastoi
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C; Species: Homo sapiens (man) evision 01-Sep-1981 #text_change 09-Jul-2004
C; Accession: A01835; A22255; C42753
R; Lawn, R.M.; Adelman, J.; Dull, T.J.; Gross, M.; Goeddel, D.; Ullrich, A. Science 212, 1159-1162, 1981
A; Title: DNA sequence of two closely linked human leukocyte interferon genes. A; Accession: A01835
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                                                      F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-189/Product: interferon alpha-I-14 #status experimental <WAT>
F;24-122, 52-162/Disulfide bonds: #status predicted
F;25,95/Binding site: carbohydrate (Asn) (covalent) #status predicted
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N;Alternate names: interferon alpha-9; interferon alpha-I'
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;24-189/Product: interferon alpha-17 #status predicted
;24-122,52-162/Disulfide bonds: #status predicted
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89.1%; Score 767; DB 1;
Best Local Similarity 89.8%; Pred. No. 1.1e-61;
Matches 149; Conservative 8; Mismatches 9;
                                                                                                                                                                                    89.2%; Score 768; DB 1;
88.6%; Pred. No. 8.8e-62;
iive 10; Mismatches 9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cross-references: UNIPARC:UPI000017365F
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Residues: 'X',25-50,'XX',53-56 <ZOO>
                              antiviral; glycoprotein
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        interferon alpha
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Best Local Simil
Matches 147; C
        Superfamily:
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ò Dp Search completed: September 1, 2006, 13:27:57 Job time: 39 secs

Protein Sequence Searches - February 2005

All of the sequence databases on ABSS have recently been updated.

- Please note that the curators of the UniProt database have purged some temporary accession numbers from the most recent version of UniProt. These sequences have been assigned new accession number.
- If you encounter an accession number from an older search run against UniProt (results file extension .rup) that can no longer be found in the database, the permanent record with the new accession number can be found by searching the old accession number in the UniProt Protein Archive database (UniPARC) at:

http://www.pir.uniprot.org/database/archive.shtml

If you have any questions regarding this information or your results, please contact any STIC searcher.

When submitting sequence search results for scanning into IFW, please include a copy of this attachment to assist any future Examiners or members of the public who may encounter UniProt temporary accession numbers.

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homo sapi
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QBGUP4 HUMAN
QGDJX8 HUMAN
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Q2M11E HUMAN
Q52LBB HUMAN
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IFN16 HUMAN
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214618_HUMAN
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GenCore version
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                                  September 1, 2006, 13:19:08
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                      - protein search, using sw model
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Perfect score:
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MUCLECTIDE SEQUENCE [LARGE SCALE MRNA].

MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Mallahy S.J.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Rahesley J., Helton E., Ketreman M., Madan A., Rodrigues S., Sanchez A.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

Butterfield Y.S.N., Krzywinski M.I., Skalka W., Smilus D.E.,

Rodriguez A.C., Grimwood J., Schmutz J., Marra M.A.;

Rochnerch A., Schein J.E., Jones S.J.M., Marra M.A.;

"Generation and initial analysis of more than 15,000 full-length human
                                            ö
                                                                                                                                                76 IQQTFNLPSTKDSSATWEQSLLEKFSTBLNQQLNDLBACVIQEVGVEETPLMNVDSILAV 135
                                                                                                                                62 IQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLANDLEACVIQEVGVEETPLANVDSILAV 121
                                                                          61
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
                                                                                         16 CDLPQTHSLGNRRALILLAQMGRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM
                                                                       2 CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gren B.Y., Berzin V.M., Tsimanis A.Y., Apsalon U.R., Viehnevskii Y.I., Yansone I.V., Dishler A.V., Pudova N.V., Smorodintsev A.A., Iovlev V.I., Stepanov A.N., Feldmane G.Y., Meldrais Y.A., Lozha V.P., Kavsan V.M., Efimov V.A., Sverdlov B.D., "A new type of leukocytic interferon.";
                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-81148795; PubMed-6163083;
Goeddel D.V., Leung D.W., Dull T.J., Gross M., Lawn R.M.,
McCandliss R., Seeburg P.H., Ullrich A., Yelverton E., Gray P.W.;
"The structure of eight distinct cloned human leukocyte interferon
                                             ;
                                                                                                                                                                                                                                                                                                                                       16-APR-2002, sequence version 2.
07-PEB-2006, entry version 62.
Interferon alpha-21 precursor (Interferon alpha-F) (LeIF F).
                                                                                                                                                                                          122 KKYPORITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLOERLRRKE 167
                                                                                                                                                                                                          Length 181;
                                            Indels
93.0%; Score 801; DB 2; Le
94.6%; Pred. No. 1.1e-60;
Migmatches 7;
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                                                                                                                                                                                                                                                                                           <u>IPN21</u> HUMAN STANDARD; PRT; 189 AA.
P01568;
21-JUL-1986, integrated into UniProtKB/Swiss-Prot.
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MEDLINE-98087498; PubMed=9425112;
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                           Local Similarity 94.6 tes 157; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                     Name-IFNA21;
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                                                                                                                                                                                                                                                                                                                                                                                                                    Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms Distributed under the Creative Commons Attribution-NoDerivs License
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                                                                                                              2 CDLPQTHSLGNRRALILLAQMRRISPPSCLKDRHDFGPPQEEFDGNQPQKAQAISVLHEM
Nyman T.A., Toeloe H., Parkkinen J., Kalkkinen N.;
"Identification of nine interferon-alpha subtypes produced by Sendai
virus-induced human peripheral blood leucocytes.";
Biochem. J. 329:295-302(1998).
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PANTHER; PTHRI1691; Interferon abd; 1.
PANTHER; PTHRI1691; Interferon abd; 1.
PRINTS; PR00266; INTERPERONAB.
PRODOM; PD000550; Interferon abd; 1.
SWART; SW00076; IPabd; 1.
PROSITE; PS00252; INTERPERON A B D; 1.
Antiviral defense; Cytokine; Direct protein sequencing; Signal.
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Pred. No. 1.2e-60;
2; Mismatches 7; Indels
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/FTId=PRO 0000016370.
By similarity.
By similarity.
L -> M (in Ref. 1).
L -> M (in Ref. 1).
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ID IFNAS HUMAN STANDARD; PRT; 189 AA.
AC P01569; integrated into UniProtKB/Swiss-Prot.
DT 21-JUL-1986; integrated into UniProtKB/Swiss-Prot.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HSSP; PO1563; IITF.
SMR; PO1568; 24-189.
Ensembl; ENSG00000137080; Homo sapiens.
HGNC; HGNC: 5424; IFNA21.
MIM; 147584; gene.
LinkHub; P01568; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL, BC069329; AAH69229.1; -; mRNA.
EMBL, BC069372; AAH69372.1; -; mRNA.
EMBL, BC069408; AAH69408.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; M12350; AAA52718.1; -; MENA.
EMBL; V00540; CAA23801.1; -; MENA.
EMBL; X00145; CAA24980.1; -; MENA.
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PIR; I84464; I84464.
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-1- SIMILARITY: Belongs to the alpha/beta interferon family.
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RAY PURDHEALS SEQUENCE LARGE SCALE GENOMIC DUAN.

RA Humphray S.J., Oliver K., Hunt A.R., Plumb R.W., Loveland J.E.,

ROWE K.L., Andrews T.D., Searle S., Hunt S.R., Scott C.E., Jones M.C.,

Ainscough R., Almeida J. Badduley C.L., Bailey J., Banerjee R.,

Babbage A.K., Babbage S., Bagquley C.L., Bailey J., Banerjee R.,

Barker D.J., Barlow K.F., Bates K., Beasley H., Beasley O., Bird C.P.,

RA Barker D.J., Brown J.Y., Burford D., Burrill W.,

Burton J., Carder C., Carter N.P., Chapman J.C., Chen Y., Clarke G.,

Chark S.Y., Clee C.M., Clegg S., Collier R.E., Corby N., Crosier M.,

RA Cummings A.T., Davies J., Dhami P., Dunn M., Dutta I., Dyer L.W.,

RA Barthrowl M.E., Faulkner L., Fricker D.G., Garner P., Garnett J.,

Rathrowl M.E., Franklan E., Pleming C.J., Franklah A.,

Rathrowl J.A., French L., Fricker D.G., Garner P., Garnet U.,

Andriffiths C., Griffiths-Jones S., Grocock R., Guy J., Hall R.E.,

Hammond S., Harley J.L., Harrison B.S. I., Howden P.J., Huckle E.,

A Chonson C., Johnson D., Joy A.A., Kay M., Keenan S., Kershaw J.K.,

RA Johnson C., Johnson D., Joy A.A., Kay M., Keenan S., Kershaw J.K.,

RAMberley A.M., King A., Knights A., Laird G.K., Langford C., Lloyd D.M.,

Lovell J., Martin S., Mashreghi Wohammadi M., Matthews L., McLaren S.,

Rordsiek G., Pearce A.V., Peck A.I., Porter K.M., Thorpe A.,

Sehra H.K., Shownkeen R., Sims S.K., Skuce C.D., Smith M.,

Sehra H.K., Shownkeen R., Sims S.K., Skuce C.D., Smith M.,

Sehra H.K., Shownkeen R., Sims S.K., Skuce C.D., Smith M.,

Sehra H.K., Shownkeen R., Sims S.K., Williams S.A., Wilming L., Wray P.W.,

Young L., Ashuret J.L., Coulson A., Blocker H., Durbin R.,

Young L., Ashuret J.L., Coulson M.J., Bentley D.R.,

ROBER S.J., Bentley D.R.,

Whitehead S.L., Willey S.D., Williams S.A., Wilming L., Wray P.W.,

ROBER S.J., Burker S.D., Williams S.A., Wilming L., Wray P.W.,

ROBER S.J., Burker S.D., Burker W., Walliam S.,

ROBER S.J., Burker S.J., Burker S.D.,

ROBER S.J., Burker S.D.,

ROBER S.J., Burker S.D.,

                                       07-FEB-2006, entry version 57.
Interferon alpha-5 precursor (Interferon alpha-G) (LeIF G) (Interferon
                                                                                                                                                                                             Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini, Hominidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PubMed=15340161; DOI=10.1110/ps.04682504;
Zhang Z., Henzel W.J.;
Signal peptide prediction based on analysis of experimentally
signal peptide sites.";
Protein Sci. 13:2819-2824(2004).
-!- FUNCTION: Produced by macrophages, IFN-alpha have antiviral
activities. Interferon stimulates the production of two enzymes:
protein kinase and an oligoadenylate synthetase.
-!- SUBCELLULAR LOCATION: Secreted protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Goeddel D.V., Leung D.W., Dull T.J., Gross M., Lawn R.M., McCandliss R., Seeburg P.H., Ullrich A., Yelverton B., Gray P.W., "The structure of eight distinct cloned human leukocyte interferon
                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=86037205; PubMed=4057246; Henco K., Brosius J., Fujisawa J., Haynes J.R., Hechstadt J., Kovacic T., Pasek M., Schamboeck A., Schmid J., Todokoro K., Macloli M., Nagata S., Weissmann C.; Structural relationship of human interferon alpha genes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-81148795; PubMed=6163083;
13-AUG-1987, sequence version 1.
07-FEB-2006, entry version 57.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nature 290:20-26(1981).
                                                                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                         NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
                                                                                                                                     Name=IFNA5;
                                                                                                       alpha-61
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84 IQQTFNLFSTKDSSAT#DETLLDKFYTELYQQLNDLEACM@QEVGVEDTPLMNVDSILTV 143
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Buarchontoglires; Primates; Catarrhini; Hominidae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                                    GO; GO:0005126; F:hematopoietin/interferon-class (D200-domain. InterPro; IPR000471; Interferon abd.
PANTHER; PTHR11691; Interferon abd; 1.
Pfan; PF00143; Interferon; 1.
PRINTS; PR00126; INTERFERONAB.
PRINTS; PR000550; Interferon abd; 1.
SMART; SM00076; IFAbd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00252; INTERFERON A B D; 1.
Antiviral defense; Cytokine; Direct protein sequencing; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 189;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122 KKYPORITLYLTEKKYSPCAWEVVRABIMRSFSLSTNLOERLRRKE 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93.0%; Score 801; DB 1; Length 18
91.0%; Pred. No. 1.2e-60;
ive 9; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Interferon alpha-5.
/FIId=FRO 0000016362.
By similarity.
By similarity.
W, C60S992FE2E78043 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-MAY-2005, integrated into UniProtKB/TrEMBL. 24-MAY-2005, sequence version 1. 21-PEB-2006, entry version 9. Interferon, alpha 5.
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QS2LX3;
                                                EMBL; X02956; CAA26702.1; -; Genomic DNA.
EMBL; AL162420; CAH73189.1; -; GenomIc_DNA.
EMBL; V00541; CAA23802.1; -; mRNA.
PIR; S43716; IVHUA7.
                                                                                                                                                                                      SMR; P01569; 24-189.
Ensembl; ENSG0000147873; Homo sapiens.
HGNC; HGNC:5426; IFNA5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24 122 By
52 162 By
189 AA; 21942 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 151; Conservative
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Best Local Similarity
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                                                                                                                                                                                                                                                           MIM; 147565; gene.
                                                                                                                                                              HSSP, PO1563, 1ITE
                                                                                                                                                                                                                                                                                 LinkHub; P01569;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9606;
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SEQUENCE
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NUCLEOTIDE SEQUENCE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 84 IQQTFNLFSTKDSSATWDETLLDKFYTELYQQLNDLEACMMQEVGVEDTPLMNVDSILTV 143
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
Distributed under the Creative Commons Attribution-NoDerivs License
              Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A., Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.M., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
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Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini, Hominidae,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMR; OS2LX3; 24-189.
SMR; OS2LX3; 24-189.
Snsembl; BNSG0000147873; Homo sapiens.
GO; GO:0005126; C:extracellular space; IEA.
GO; GO:0005126; F:hematopoletin/interferon-class (D200-domain.
GO; GO:000552; P:defense response; IEA.
GO; GO:0005615; P:response to virus; IEA.
InterPro; IPR000471; Interferon_abd.
PANTHER; PTHR11691; Interferon_abd;
PANTHER; PTHR11691; Interferon_abd;
PANTHER; PTHR11691; Interferon_abd;
                                                                                                                                                                                                                                                                                                                                                                        NIH MGC Project;
Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.
-!- SUBCELLULAR LOCATION: Secreted protein (By similarity).
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Antiviral defense; Cytokine.
SEQUENCE 189 AA; 21942 MW; C605992FE2E78043 CRC64;
                                                                                                                                                                                                                                                          and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93.0%; Score 801; DB 2;
91.0%; Pred. No. 1.2e-60;
iive 9; Mismatches 6;
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10-MAY-2005, integrated into UniProtKB/TrEMBL. 10-MAY-2006, sequence version 1.
21-FEB-2006, entry version 10.
Interferon, alpha 21.
Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRINTS; PR00266; INTERFERONAB.
ProDom; PD000550; Interferon_abd; 1.
SMART; SM00076; IFabd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; BC093757; AAH93757.1; -; mRNA.
EMBL; BC093755; AAH93755.1; -; mRNA.
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                               NUCLEOTIDE SEQUENCE.
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NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                       rissum-Brain;
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TISSUB-Brain, and PCR rescued clones;

TISSUB-Brain, and PCR rescued clones;

TISSUB-Brain, and PCR rescued clones;

X Strausberg R.L., Felmyold E.A., Grouse L.H., Derge J.G.,

X Strausberg R.L., Felmyold E.A., Grouse L.H., Derge J.G.,

X Lausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,

Altschul S.F., Zeeberg B. Buetow K.H., Schaefer C.P., Bhat N.K.,

Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heateh F.,

Astapleton M., Soares M.B., Bonaldo M.F., Carninci P., Prange C.,

Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Glabs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Glabs R.A.,

Richards S., Worley W.C., Shevchenko Y., Bouffard G.G.,

Rhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Rodriguez A.C., Grimwood J., Schmutz J., Myers M.N.,

Butterfield X.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Rodriguez A.C., Grimwood S.J.M., Marra M.N.;

Rodriguez A.C., Grimwood S.J.M., Marra M.N.;
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Ensembl; ENSG0000137080; Homo sapiens.
GO; GO:0005126; P:hematopoietin/interferon-class (D200-domain. . .; IEA.
GO; GO:0005125; P:hematorepoietin/interferon-class (D200-domain. . .; IEA.
GO; GO:0006952; P:defense response; IEA.
GO; GO:0009615; P:response to virus; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
Distributed under the Creative Commons Attribution-NoDerivs License
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases.
-!- SUBCELLULAR LOCATION: Secreted protein (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 189;
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94.6%; Pred. No. 1.2e-60;
ive 2; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUB-Brain;
NIH MGC Project;
Submitted (406-2005) to the EMBL/GenBank/DDBJ databases.
Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21741 MW; F0B6C9C392905802 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
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Antiviral defense; Cytokine.
SEQUENCE 189 AA; 21741 MW; F0B6C9C3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR000471; Interferon abd. PANTHER; PTHR11691; Interferon abd; 1. Pfent, PF00143; Interferon; 1.
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EMBL; BC101640; AAI01641.1; -; mRNA.
EMBL; BC096699; AAH96699.1; -; mRNA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rescued clones;
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Best Local Similarity 94.64
Matches 157; Conservative
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TISSUE-PCR rescued
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DISULPID
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A Klausher R.L., Feingold B.A., Grouse L.H., Derge J.G.,
A Altechul S.F., Zeeberg B. Buetow K.H., Schaefer C.F., Bhat N.K.,
A Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Distchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Brownstein M.J., Usdin T.B., Tooshiyuki S., Carninci P., Frange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Boask S.A., McKernan R.Y., Malek J.A., Gunarane P.H.,
Richards S., Worley K.C., Hale S., Garchen A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Glbbs R.A.,
Multing M., Madan A., Young A.C., Shavchenko Y., Bouffard G.G.,
Multing M., Madan A., Young A.C., Shavchenko Y., Bouffard G.G.,
Butterfield Y.S.N., Krzywinski M.I., Skalka U., Smallus D.E.,
Butterfield Y.S.N., Krzywinski M.I., Skalka U., Smallus D.E.,
Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIINE-84307815; PubMed-6089830;
Linnane A.W., Beilharz M.W., McMullen G.L., Macreadie I.G., Murphy M.,
Nisber I.T., Novitski C.E., Woodrow G.C.;
"Nucleotide sequence and expression in B. coli of a human interferon-
alpha gene selected from a genomic library using synthetic
                                                                                                                                                                                                                                                                                                                                                                                                          nouso appress. Metazoai.
Bukaryota, Metazoai Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini, Hominidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-97474410; PubMed-9335434;
Hussain M., Gill D.S., Liso M.-J.;
"Both variant forms of interferon-alpha4 gene (IFNA4a and IFNA4b) are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nyman T.A., Toeloe H., Parkkinen J., Kalkkinen N.; "Identification of nine interferon-alpha subtypes produced by Sendai virus-induced human peripheral blood leucocytes."; Biochem. J. 329:295-302(1998).
                                                                                                                                                                                                                                                                                                           precursor (Interferon alpha-4B) (Interferon alpha-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUCLEOTIDE SEQUENCE, AND VARIANTS ALPHA-4B THR-74 AND VAL-137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=86037205; PubMed=4057246;
Henco K., Brosius J., Fujisawa A., Fujisawa J., Haynes J.R.,
Hochstadt J., Kovacic T., Pasek M., Schambock A., Schmid J.,
Todokoro K., Waelchli M., Nagata S., Weissmann C.;
"Structural relationship of human interferon alpha genes and
pseudogenes.";
122 KKYPQRITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLQERLRRKE 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA], AND VARIANT THR-74
                           144 KKYFQRITLYLTEKKYSPCAWEVVRAEIWRSPSLSKIFQERLRRKE
                                                                                                                                                                           IFNA4 HUMAN STANDARD; PRT; 189 AA.
P05014; P13358;
13-AUG-1987, integrated into UniProtKB/Swiss-Prot.
10-MAY-2005, sequence version 2.
107-FRB-2006, entry version 6.
Interferon alpha-4 precursor (Interferon alpha-4B)
M1) (Interferon alpha-76).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        J. Mol. Biol. 185:227-260(1985)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Biochem. Int. 8:725-732(1984).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cDNA sequences.
                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUCLEOTIDE SEQUENCE.
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                                                                                                                                                                                                                                                                                                                                                                    Name=IFNA4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19
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                                                                                                                                                                                                                                             Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
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present in the human population.";
J. Interferon Cytokine Res. 17:559-566(1997).
J. Interferon Cytokine Res. 17:559-566(1997).
J. FUNCTION: Produced by macrophages, IFN-alpha have antiviral activities. Interferon stimulates the production of two enzymes: a protein kinase and an oligoadenylate synthetase.
J. SUBCELLULAR LOCATION: Secreted protein.
J. POLYMORPHISM: Two forms exist; alpha-4a (shown here) and alpha-4b.
They seem to be equally abundant.
J. SIMILARITY: Belongs to the alpha/beta interferon family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00252; INTERPERON A B D; 1.
Antiviral defense; Cytokine; Direct protein sequencing; Polymorphism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /FTIG=PRO 0000016361.
By similarity.
By similarity.
A -> T (in alpha-4B; dbSNP:1062571).
/FTIG=VAR_013002.
B -> V (in alpha-4B; dbSNP:3750480).
/FTIG=VAR_013003.
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GO; GO:0005132; F:interferon-alpha/beta receptor binding; TAS.
GO; GO:0009615; P:response to virus; TAS.
GO; GO:0009615; P:response to virus; TAS.
InterPro; IPR000471; Interferon abd.
PANTHER; PTHR11691; Interferon_abd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 786; DB 1; Length 189;
Pred. No. 2.3e-59;
8; Mismatches 6; Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         122 KKYPQRITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLQERLRRKE 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  189 AA; 21808 MW; 828DP9C33ABC337F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Interferon alpha-4
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                                                                                                                                                                                                                                                                                                                    EMBL; X02955; CAA26701.1; -; Genomic_DNA.
EMBL; M27318; AAA52726.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ensembl; ENSG0000147877; Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Interferon, alpha 4.
Name=IFNA4; ORFNames=RP11-1P8.4-001;
                                                                                                                                                                                                                                                                                                                                                                    EMBL; BC074965; AAH74965.1; -; mRNA.
EMBL; BC074966; AAH74966.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PR00266; INTERFERONAB.
SMART; SM00076; IFAbd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              91.3%;
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QSVV15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00143; Interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 152; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HGNC, HGNC:5425, IFNA4.
MIM; 147564; gene.
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189
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74
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PIR; I52347; I52347.
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SMR; P05014; 24-189
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HSSP; P01563; 1ITF.
SMR; P01571; 24-189
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Distributed under the Creative Commons Attribution-NoDerivs License
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ID TRAIT HUMAN

ID 7 1 1014639;

AC 701571; 014639;

DT 21-7UL-1984, sequence version 2.

DT 01-0CT-1994, sequence version 62.

DT 07-FEB-2006, entry version 62.

DT 07-FEB-2006, entry version 62.

DT 07-FEB-1006, precursor (Interferon alpha-I') (Interferon alpha-DE Interferon alpha-BB).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
Mammalia; Butheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lawn R.M., Adelman J., Dull T.J., Gross M., Goeddel D.V., Ullrich A.; "DNA sequence of two closely linked human leukocyte interferon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                        Ensembl; SNSG0000147877; Homo sapiens.
LinkHub; QSVV15; — GC; Extracellular space; IEA.
GO; GO:0005615; C:extracellular space; IEA.
GO; GO:0005615; P:defense response; IEA.
GO; GO:0006615; P:defense response; IEA.
GO; GO:0006615; Interferon_abd.
InterPro; IPR000471; Interferon_abd.
PANTHER; PTHR11691; Interferon_abd; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 189;
                                                                                                                     Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 91.3%; Score 786; DB 2; Length 18
Best Local Similarity 91.6%; Pred. No. 2.3e-59;
Matches 152; Conservative 8; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antiviral defense, Cytokine.
SPOURNCE 189 AA; 21808 MW; 828DF9C33ABC337F CRC64;
                                                                                                                                                                                                                                      EMBL; AL512606; CAH71188.1; -; Genomic_DNA.
SMR; Q5VV15; 24-189.
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MEDLINE-85229953; PubMed=3891272;
Mizoguchi J., Pitha P.M., Raj N.B.K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUCLEOTIDE SEQUENCE.
MEDLINE=81201124; Pubmed=6165082;
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00143; Interferon;
                                                                               NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                 VCBI_TaxID=9606;
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Distributed under the Creative Commons Attribution-NoDerivs License
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MEDLINE=87024453; PubMed=3767336;
MEDLINE=87024453; PubMed=3767336;
Saveliev V.I., Zlochevbky M.L., Sorokin A.V., Naroditskaya V.A.,
Bolotin A.P., Demyanova N.G., Kozlov Y.I., Neznanov N.S.,
Gazaryan K.G., Monastyrskaya G.S., Sverdlov E.D.;
"[Cloning and the determination of the nucleotide sequences in 2 genes of human leukcoyte interferons]."
Antibiot. Med. Biotekhnol. 31:592-596(1986).
                                                                                                                                                         MEDLINE=98376207; PubMed=9712362;
Hussain M., Tan T., Ni D., Gill D.S., Liao M.-J.;
Hussain M., Tan T., Ni D., Gill D.S., Liao M.-J.;
Hussain M., Tan T., Ni D., Gill D.S., Liao M.-J.;
Hussain M., Tan T., Ni D., Gill D.S., Liao M.-J.;
Major variant in human population.";
J. Interferon Cytokine Res. 18:469-477(1998).
-!- FUNCTION: Produced by macrophages, IFN-alpha have antiviral activities. Interferon stimulates the production of two enzymes: a protein kinase and an oligoadenylate synthetase.
-!- SUBCELLULAR LOCATION: Secreted protein.
-!- SIMILARITY: Belongs to the alpha/beta interferon family.
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PRINTS; PR00266; INTERFERONAB.
Prodom; PD000550; Interferon_abd; 1.
SMART; SM00076; IFAbd; 1.
PROSITE; PS00252; INTERFERON A B D; 1.
Antiviral defense; Cytokine; Direct protein sequencing; Polymorphism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=98087498; PubMed=9425112;
Nyman T.A., Toeloe H., Parkkinen J., Kalkkinen N.;
"Identification of nine interferon-alpha subtypes produced by Sendai
"intertification of nine interferon-alpha subtypes produced by Sendai
Biochem. J. 329:295-302(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=92340576; PubMed=1634550; 20x Nedden D., Enterline J.C., Miller D., Bekisz J., zur Nedden D., Enterline J.C., Nguyen N.Y., Hu R.Q.; Purification and characterization of multiple components of human
"Efficient expression in Escherichia coli of two species of human
interferon-alpha and their hybrid molecules.";
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GO; GO:0005132; F:interferon-alpha/beta receptor binding; TAS.
GO; GO:0009615; P:response to virus; TAS.
InterPro; IPR00041; Interferon abd.
PANTHER; PTHR11691; Interferon_abd; 1.
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EMBL; V00532; CAA23793.1; -; Genomic_DNA.
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HGNC; HGNC:5422; IFNA17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lymphoblastoid interferon-alpha."; J. Biol. Chem. 267:15210-15216(1992)
                                                                                                                                                                                                                                                                                                                                                             J. Interferon Res. 5:229-238(1985).
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EMBL, M71246; AAA5213.1;-; mENA.
PIR; AO1835; IVHUA9.
PIR; IS6314; IS6314.
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RA MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Altenbra R.D., Collins F.S., Wagner I., Shenmen C.M., Schuler G.D.,
RA Altenbul S.F., Zeeberg B., Buetow K.H., Scheefer C.F., Bhata N.K.,
RA Altenbul S.F., Jordan H., Moore T., Max S.I., Wang J., Heish F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M.J., Uddin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Robards S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Rachey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
Mitting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Schen B.D., Dickson M.C.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
Schnerch A., Schein J.B., Jones S.J.M., Marra M.A.;
"Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
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                                                                                                                                                              CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM 61
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Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini, Hominidae,
                                                                                                                                        Gaps
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                                                                                                                                                                                                                                                         90.2%; Score 777; DB 1; Length 189; 90.4%; Pred. No. 1.4e-58; Live 8; Mismatches 8; Indel8
       /FTIG=PRO_0000016369.

By similarity.

I -> R (in dbSNP:9298814).

//FTIG=VAR 013020.

H -> P (in Ref. 1).

S -> P (in Ref. 3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Beasley H.;
Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases.
                                                                                         21728 MW; 0448EAEAB9D7FC32 CRC64;
Interferon alpha-17
                                                                                                                                                                                                                                                                                                                                       OSVESS HUMAN PRELIMINARY; PRT; 189 AA. 05VESS 10-MAY-2005, integrated into UniProtKB/TrEMBL. 10-MAY-2005, sequence version 1. 21-FEB-2006, entry version 8. Interferon, alpha 17. Interferon, OFFNAMES-RP11-380P16.10-001; Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=PCR rescued clones;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUCLEOTIDE SEQUENCE.
TISSUE=PCR rescued clones;
                                                                                                                      Best Local Similarity 90.4 Matches 150; Conservative
                    122
162
184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE.
                                                                                         189 AA;
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DISULFID
VARIANT
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CONFLICT
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CHAIN
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84 IQQTFNLFSTEDSSAAWEQSLLEKFSTELYQQLNNLEACVIQEVGMEETPLANBEDSILAV 143
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Distributed under the Creative Commons Attribution-NoDerivs License
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Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini, Hominidae,
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McCandliss R., Seeburg P.H., Ullrich A., Yelverton B., Gray P.W.;
"The structure of eight distinct cloned human leukocyte interferon
                                                                                                                                                                                                                                                                                                                                                                                                                          SMR; OSVZS3; 24-189.

Ensembl; RNGG0000186609; Homo sapiens.

GO; GO:0005615; C:extracellular space; IEA.

GO; GO:000515; P:hematopoletin/interferon-class (D200-domain...

GO; GO:0009515; P:response to virus; IEA.

GO; GO:0009615; P:response to virus; IEA.

InterPro; IPR000611; Interferon abd.

PANTHER; PTHR11691; Interferon, abd; 1.

PRINTS; PR00266; INTERFERONAB.

SMART; SM00076; IPabd; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8; Indels
Submitted (JUN-2005) to the EMBL/GenBank/DDBJ databases.
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Antiviral defense; Cytokine.
SEQUENCE 189 AA; 21728 MW; 0448EAEAB9D7FC32 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
90.2%; Score 777; DB 2;
Best Local Similarity 90.4%; Pred. No. 1.4e-58;
Matches 150; Conservative 8; Mismatches 8:
                                                                                                                                                                                                                                                                                                                                EMBL; AL162420; CAH73185.1; -; Genomic_DNA.
EMBL; BC098355; AAH98355.1; -; MRNA.
EMBL; BC096732; AAH96732.1; -; MRNA.
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MEDLINE-89328015; PubMed-2526839;
Bartholomew C., Windass J.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=81148795; PubMed=6163083;
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                                                                                         rissum=PCR rescued clones;
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Homo sapiens (Human)
                                                         NUCLEOTIDE SEQUENCE
                                                                                                                             NIH MGC Project;
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P01566;
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2 CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM
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                                                                                                                              MUCLECOTIDE SEQUENCE [LARGE SCALE MRNA].

MUCLECOTIDE SEQUENCE [LARGE SCALE MRNA].

MEDINE-22388257; Pubbled=12477932; DOI=10.1073/pnas.242603899;

Strausberg R.L., Felingold E.A., Grouse L.H., Derge J.G.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Heibe F.,

And Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Heng L.,

Brownstein M.J., Uddin T.B., Toshiyuki S., Carninol P., Prange C.,

And S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunarathe P.H.,

Althard S., Worley N.M., Sodersen B.J., Lu X., Gibbs R.A.,

Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Milting M., Madan A., Young A.C., Shevchenko Y., Boutfard G.G.,

Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

Blakeeley R.W., Touchman J.W., Green E.D., Dickson M.C.,

Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;

"Generation and initial analysis of more than 15,000 full-length human

manne CDNA sequences.",

"Touch Marl M. A. Schein J. S. A. Boutfard G.J. M. A. Brock M. A. Schein J. B. A. Schein J.
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Distributed under the Creative Commons Attribution-NoDerivs License
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Identification of a functional allele of a human interferon-alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam, Pr00143, Interferon, 1.
PRINTS, PR0266; INTERFERONAB.
Prodom, P0000550, Interferon_abd, 1.
SWART; SM00076; Interferon_abd, 1.
PROSITE, PS00252; INTERPERON A B D; 1.
Antiviral defense; Cytokine; Direct protein sequencing; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  receptor binding, ISS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- SIMILARITY: Belongs to the alpha/beta interferon family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 776; DB 1; Length 189;
Pred. No. 1.7e-58;
7; Mismatches 9; Indels
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CEC680996FDA706B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
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/FIId=PRO 0000016366.
By similarity.
                                 ne previously characterized as a pseudogene.";
Interferon Res. 9:407-417(1989).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; V00551; CAA23812.1; -; mRNA.
EMBL; BC069409; AA469409.1; -; mRNA.
PIR; A60937; IVHUA5.
SMR; P01563; IITF.
SMR; P01566; 24-189.
Ensembl; ENSG0000186803; Homo sapiens.
HGNC; HGNC; 5418; IFNA10.
MIM; 147577; gene.
LinkHub; P01566; -.
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52 162
189 AA; 21835 MW;
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Gaps

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90.48;

Best Local Similarity 90.4 Matches 150; Conservative Similarity

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TISSUB-PCR rescued clones;

WEDLINE=22388257; PubMed=1247932; DOI=10.1073/pnas.242603899;

RETURE=22388257; PubMed=1247932; DOI=10.1073/pnas.242603899;

RIAURNET R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

RIAURNET R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

Altschul S.F., Zeeberg B., Buctow K.H., Schaefer C.F., Bhat N.K.,

Diatchenko L., Marusins K., Parmer A.A., Rubin G.M., Heiseh F.,

Diatchenko L., Marusins K., Parmer A.A., Rubin G.M., Heng L.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Raha S.S., McEwan P.J., McKerran K.J., Malek J.A., Gunaratne P.H.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

Richards S., Helton B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C.,

Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Butterfield A.S., Sohein J.B., Jones S.J.M., Marra M.A.;

"Generation and initial analysis of more than 15,000 full-length human
                                                            121
                                                                                        84 IQQTFNLFSTEDSSAAWEQSLLEKFSTELYQQLANDLEACVIQEVGVEETPLAMEDSILAV 143
                83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GO:0005615; C:extracellular space; IEA.
GO:0005126; P:hematopoietin/interferon-class (D200-domain. . .; IEA.
GO:0006952; P:defense response; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
Distributed under the Creative Commons Attribution-NoDerivs License
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini, Hominidae,
24 CDLPQTHSLGNRRALILLGQMGRISPFSCLXDRHDFRIPQBEFDGNQPQKAQAISVLHEM
                                                                62 IQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLANVDSILAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -i - SUBCELLULAR LOCATION: Secreted protein (By similarity).
                                                                                                                                                 Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NIH MGC Project;
Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                      10-MAY-2005, integrated into UniProtKB/TrEMBL.
                                                                                                                                                                                                                                                                                                             189 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AL512606; CAH71191.1; -; Genomic_DNA.
EMBL; BC103972; AAI03973.1; -; mRNA.
EMBL; BC103973; AAI03974.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ensembl; ENSG0000186803; Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                         10-MAY-2005, sequence version 1.
21-FEB-2006, entry version 9.
Interferon, alpha 10.
Mame=IRMA10; ORFMames=RP11-1P8.9-001;
Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                 QSVV13_HUMAN PRELIMINARY;
QSVV13;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUCLEOTIDE SEQUENCE.
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2 CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM 61
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DISULPID
CONFLICT
SEQUENCE
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SIGNAL
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                                                                                                                                                                                                                  62 IQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILAV 121
                                                                                                                                                                                                                              84 IQQTFNLFSTEDSSAAMEQSLLEKFSTELYQQLNDLBACVIQEVGVEETPLMNEDSILAV 143
                                                                                                                                                                     63
                                                                                                                                                                                         83
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini, Hominidae,
                                                                                                                                                                                 24 CDLPQTHSLGNRRALILLGQMGRISPPSCLKDRHDFRIPQEEFDGNQFQKAQAISVLHEM
                                                                                                                                                                   2 CDLPOTHSLGNRRALILLAOMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
MEDLINE-81201124; PubMed-6165082;
Learn R.M., Adelman J., Dull T.J., Gross M., Goeddel D.V., Ullrich A.;
"DNA sequence of two closely linked human leukocyte interferon
                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=22386257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klauener R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D., Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUCLEOTIDE SEQUENCE.
MEDLINE=81148795; PubMed=6163083;
Goeddel D.V., Leung D.W., Dull T.J., Gross M., Lawn R.M.,
McCandliss R., Seeburg P.H., Ullrich A., Yelverton B., Gray P.W.;
"The structure of eight distinct cloned human leukocyte interferon cDNAs.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=86037205; PubMed=4057246; Henco K., Brosius J., Fujisawa A., Fujisawa J., Haynes J.R., Hochstadt J., Kovacic T., Pasek M., Schamboeck A., Schmid J., Todokoro K., Waelchli M., Nagata S., Weissmann C.; Structural relationship of human interferon alpha genes and J. Mol. Biol. 185:227-260(1985).
                                                                                                                                                                                                                                                                Length 189;
                                                                                                                                                                                                                                                                                                                                                                                                               Ĥ
                                                                                                                 90.1%; Score 776; DB 2; Length 18
90.4%; Pred. No. 1.7e-58;
ive 7; Mismatches 9; Indels
                                                                                                                                                                                                                                                                                                                                                                                      21-JUL-1986, sequence version 3.
07-FBB-2006, entry version 63.
Interferon alpha-14 precursor (Interferon alpha-H) (LeIF
(Interferon lambda-2-H).
                                                                                           189 AA; 21835 MW; CEC680996FDA706B CRC64;
                                                                                                                                                                                                                                                                                                                                                                          21-JUL-1986, integrated into UniProtKB/Swiss-Prot.
                                                                                                                                                                                                                                                                                                                                                     189 AA.
GO, GO:0009615; P:response to virus; IEA.
InterPro; IPR0000471; Interferon abd.
PANTHER; PTHR11691; Interferon abd; 1.
Pfam; PF00143; Interferon; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
                                                                   PROSITE, PS00252; INTERFERON A B D; 1. Antiviral defense; Cytokine.
                                                                                                                                                                                                                                                                                                                                                     PRT;
                                             PRINTS; PR00266; INTERFERONAB.
SMART; SM00076; IFabd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Science 212:1159-1162(1981).
                                                                                                                                            Matches 150; Conservative
                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nature 290:20-26(1981).
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human)
                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=IFNA14;
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P01570;
                                                                                             SEQUENCE
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Best Local S
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Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong D.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.B.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Frange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunarane P.H.,
Richards S., Worley K.C., Hale S., García A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Tochman J.W., Green E.D., Dickson M.C.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Butterfield Y.S.N., Krzywinski M.I., Skalaka U., Smailus D.E.,
Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
"Generation and initial analysis of more than 15,000 full-length human
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GO; GO:0005126; F:Rematopoietin/interferon-class (D200-domain. . .; TAS.
InterPro; IRR000411; Interferon_abd.
PANTHER; PTHR11691; Interferon_abd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
Distributed under the Creative Commons Attribution-NoDerivs License
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00252; INTERFERON A B D; 1.
Antiviral defense; Cytokine; Direct protein sequencing; Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROTEIN SEQUENCE OF 24-53, AND CARBOHYDRATE-LINKAGE SITE ASN-95. MEDLINE-98087498; PubMed-9425112; Nyman T.A., Toeloe H., Parkkinen J., Kalkkinen N.; Identification of nine interferon-alpha subtypes produced by Sendai virus-induced human peripheral blood leucocytes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
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162 By similarity.
175 F (in Ref. 3).
22063 MW, B6B71E2F0D644FB7 CRC64,
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N-linked (GlcNAc. .)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
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EMBL; X02959; CAA26705.1; -; Genomic_DNA.
EMBL; V00542; CAA23803.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; BC074956; AAH74956.1; -; mRNA.
PIR; A92916; IVHU14.
HSSP; PO1563; 11TF.
GlycoSuiteDB; P01570; -.
GlycoSuiteDB; P01570; -.
HGNC; HGNC:5420; IFNA14.
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ProDom; PD000550; Interferon abd; 1.
SMART; SM00076; IFabd; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        cDNA sequences."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABSENCE OF POLYMORPHISM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23
189
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NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=IFNA7;
                                                                                                                                                                                                                                                          Query Match
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NUCLEOTIDE SEQUENCE.

TISSUE-PCR rescued clones;

MICLEOTIDE SEQUENCE.

MICLEOTIDE SEQUENCE.

MICLEOTIDE SEQUENCE.

MICLEOTIDE SEQUENCE.

MICLEOTIDE R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Altechal S.F., Zeeberg B., Buerow K.H., Schaefer C.F., Bhat N.K.,

Altechal S.F., Zeeberg B., Buerow K.H., Schaefer C.F., Bhat N.K.,

MICLEOTIDE R.P., Jordan H., Moore T., Max S.I., Wang J., Heishe F.,

Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Aspleton M., Soares M.B., Bonaldo M.F., Carannor T.L., Scheetz T.E.,

Brownstein M.J., Usdin T.B., Tooshiyuki S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Brownstein M.J., McKernan K.J., Macker D., Mullahy S.J.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Whiting M., Madan A., Young A.C., Shewchenko Y., Bouffard G.G.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

M. Schnerch A., Schehu J.E., Jones B.J.M., Marra M.A.,

"Marra 
                                                                                                                    84 MQQTFNLFSTKNSSAAMDETLLEKFYIELFQQMNDLEACVIQEVGVEETPLMNEDSILAV 143
                                                                                      62 IQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILAV 121
     24 CNLSQTHSLINNRRTLMLMAQMRRISPFSCLKDRHDFEFPQEEFDGNQFQKAQALSVLHEM 83
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GO; GO:0005126; F:hematopoietin/interferon-class (D200-domain. . .; IEA.
GO; GO:0006952; P:defense response; IEA.
GO; GO:0009615; P:response to virus; IEA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Euarchontoglires, Primates, Catarrhini, Hominidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                     144 KKYFQRITLYLMEKKYSPCAWEVVRAEIMRSLSFSTNLQKRLRRKD 189
                                                                                                                                                                                                        122 KKYFORITLYLIEKKYSPCAWEVVRAEIMRSFSLSTNLOERLRRKE 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Beasley H.;
Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-MAY-2005, integrated into UniprotKB/TrEMBL.
10-MAY-2005, sequence version 1.
21-FRB-2006, entry version 9.
Interferon, alpha 14 (IFNA14 protein).
Homo sapiens (Human).
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EMBL; BC104159; AA104160.1; -; mRNA.
EMBL; BC104160; AA104161.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMR; Q5VZ56; 24-189.
Ensembl; ENSG0000137026; Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                       QSVZS6_HUMAN PRELIMINARY;
QSVZS6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
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62 IQQTENIFSTKDSSAAMDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILAV 121
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Mammalia, Butheria, Euarchontoglires, Primates, Catarrhini, Hominidae,
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101567; 014607;
21-JUL-1986, integrated into UniProtKB/Swiss-Prot.
21-JUL-1986, sequence version 1.
21-JUL-1986, sequence version 6.
21-JUL-1986, sequence version 1.
21-JUL-1986, sequence version 
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MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
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MEDLINE=86037205; PubMed=4057246;
Henco K., Brosius J., Fujisawa A., Fujisawa J., Haynes J.R.,
Hochstact J., Kovacic T., Pasek M., Schamboeck A., Schmid J.,
Todokoro K., Waclchii M., Nagata S., Weissmann C.;
"Structural relationship of human interferon alpha genes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122 KKYPORITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLOERLRRKE 167
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 189;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89.2%; Score 768; DB 2; Length 18
88.6%; Pred. No. 8.1e-58;
tive 10; Mismatches 9; Indels
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Cohen S., Velan B., Grosfeld H., Shalita Z., Leitner M.
                                                                                                                                                                                                                                                                                                                                                                                                                    22063 MW; B6B71E2F0D644FE7 CRC64;
InterPro; IPR000471; Interferon_abd.
PANTHER; PTHR11691; Interferon_abd; 1.
Ptam; PR00143; Interferon; 1.
PRINTS; PR00266; INTERPERONAB.
SWART; SM0076; IPabd; 1.
Antiviral defense; Cytokine.
SEQUENCE 189 AA; 22063 MW; B6B7IEZP0]
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Matches 147; Conservative
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platchenko L., Marueina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Gaavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Tooshiyui, S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McKernan F.J., Makernan K.J., Malek J.A., Glubaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakealey R.W., Touchman J.W., Green E.D., Dickson M.C.,
Rodriquez A.C., Grimwood J., Schmutz J., Myers R.M.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smallus D.E.,
Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.,
T. "Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
                                                                                                                                                                                                                                                                                                                                                                                          MEDILINE-97067358; PubMed-8910771;
Hussain M., Gill D.S., Liao M.-J.;
Hussain M., Gill D.S., Liao M.-J.;
Inderification of interferon-alpha 7, -alpha 14, and -alpha 21
Interiferon of a large human population.";
J. Interferon Cytokine Res. 16:853-859(1996).
-!- FUNCTION: Produced by macrophages, IFN-alpha have antiviral
activities. Interferon stimulates the production of two enzymes:
protein kinase and an oligoademylate synthetase.
-!- SUBCELULAR LOCATION: Secreted protein.
-!- SIMILARITY: Belongs to the alpha/beta interferon family.
                                                                                                                                                                                                                                                                                         Nyman T.A., Toeloe H., Parkkinen J., Kalkkinen N.;
"Identification of nine interferon-alpha subtypes produced by Sendai virus-induced human peripheral blood leucocytes.";
Biochem. J. 329:295-302(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Distributed under the Creative Commons Attribution-NoDerivs License
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE, PS00252; INTERFERON A B D; 1.
Antiviral defense; Cytokine; Direct protein sequencing; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GO; GO:0005576; C:extracellular region; TAS.
GO; GO:0005132; F:interferon-alpha/beta receptor binding; TAS.
GO; GO:0005132; F:interferon-alpha/beta receptor binding; TAS.
GO; GO:0009615; P:cell signaling; TAS.
InterPro; IPR000471; Interferon abd;
PANTHER; PTHR11691; Interferon abd; 1.
Pfam; PP00143; Interferon, abd; 1.
PRINTS; PR00266; INTERFERONAB.
PRINTS; PR000559; Interferon abd; 1.
SMART; SM00076; IPabd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9DF6F5C81E339A42 CRC64;
                                                                                                                                                                                                                                     Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Interferon alpha-7.
/FIIdaPRO_0000016364.
By similarity.
By similarity.
V -> A (in Ref. 3).
M -> T (in Ref. 3).
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EMBL; X02960; CAA26706.1; -; Genomic_DNA.
EMBL; M34913; AAA36039.1; -; MRNA.
EMBL; BC074991; AAA14991.1; -; MRNA.
EMBL; BC074992; AAH74991.1; -; MRNA.
PIR; A01831; IYHUA0.
PIR; A01831; IYHUA0.
PIR; P01563; IITF.
SWR; P01563; 1ITF.
SWR; P01567; 24-189.
ENGEMD1; MSG00000147877; Homo sapiens.
HIN; 147567; gene.
                                                                                                                                                                                                                                                                PROTEIN SEQUENCE OF 24-57.
MEDLINE=98087498; PubMed=9425112;
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22107 MW;
                                                                                                                                                                                                                      and mouse cDNA sequences."
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155 1
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87.6%; Score 754; DB 1; Length 189;

Query Match

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84 IQQTFNIPSTEDSSAAWEQSLLEKFSTELYQQLNDLKACVIQEVGVEETPLMNEDFILAV 143
                                                                                                                                                          62 IQQTPNLPSTKDSSAAWDESLLEKFYTELYQQLNDLBACVIQEVGVEETPLANVDSILAV 121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
Distributed under the Creative Commons Attribution-NoDerivs License
                                                                              24 CDLPQTHSLRNRRALILLAQMGRISPFSCLKDRHBFRFPFBEBFDGHQFQKTQAISVLHEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini, Hominidae,
                                                       2 CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQBBFDGNQFQKAQAISVLHEM
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                   Gapa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
87.6%; Score 754; DB 2; Length 189;
Best Local Similarity 88.0%; Pred. No. 1.3e-56;
Matches 146; Conservative 10; Mismatches 10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         122 KKYFQRITLYLTEKKYSPCAWEVVRARIMRSFSLSTNLQERLRRKE 167
                Indels
88.0%; Pred. No. 1.3e-56; ive 10; Mismatches 10;
                                                                                                                                                                                                                                                                                                                                                                                                          10-MAY-2005, integrated into UniProtKB/TrEMBL
                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY; PRT; 189 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                             10-MAY-2005, sequence version 1.
21-FEB-2006, entry version 6.
Interferon, alpha 7.
Name=IFNA7, ORFNames-RP11-1P8.8-001;
Best Local Similarity 88.0%
Matches 146; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
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QSVV14;
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Query Match 97.4%; Score 839; DB 1; Length 166; Best Local Similarity 97.6%; Pred. No. 3.1e-88; Matches 162; Conservative 1; Mismatches 3; Indels
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amino acid
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19 ; Search time 49 Seconds
(without alignments)
298.319 Million cell updates/sec
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861
1 MCDLPQTHSLGNRRALILLA......BIMRSFSLSTNLQERLRRKE 167
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l: /EMC_Celerra_SIDS3/ptcdata/2/laa/$CCOMB.pep:*
l: /EMC_Celerra_SIDS3/ptcdata/2/laa/$CCOMB.pep:*
l: /EMC_Celerra_SIDS3/ptcdata/2/laa/TCOMB.pep:*
l: /EMC_Celerra_SIDS3/ptcdata/2/laa/H_COMB.pep:*
l: /EMC_Celerra_SIDS3/ptcdata/2/laa/PGTUS_COMB.pep:*
l: /EMC_Celerra_SIDS3/ptcdata/2/laa/RECCOMB.pep:*
l: /EMC_Celerra_SIDS3/ptcdata/2/laa/RECOMB.pep:*
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               GenCore version 5.1.9
Copyright (c) 1993 - 2006 Biocceleration Ltd.
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US-09-339-9138-75
US-08-76-9028-75
US-09-559-565C-75
US-09-693-350-75
US-09-693-389-75
US-09-339-926A-75
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US-06-256-204C-75
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US-07-145-002B-22
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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seq length: 2000000000
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Match Length I
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Sequence 8, Application US/08362453

Patent No. 5684129

GENERAL INFORMATION:

TITLE OF INVENTION: INTERPERON RECEPTOR BINDING PEPTIDES

NUMBER OF SEQUENCES: 17

CORRESPONDENCE ADDRESS: 17

CORRESPONDENCE ADDRESS: 17

COUNTRY: 055 Fifteenth Street N.W. Suite 330

CITY: Weahington

STATE: 0.C.

COUNTRY: U.S.A.

ZIPE 120065-5701

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: DAM Compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE PATENTIN Release #1.0, Version #1.25

CLASSIPLICATION DATE: 06-JAN-1995

CLASSIPLICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TILING DATE: VO-CLE
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/909,739
APPLICATION NUMBER: FILING DATE: 07-JUL-1992
APPLICATION NUMBER: FILING DATE: 07-JUL-1992
APPLICATION NUMBER: FILING DATE: 20-NOV-1992
APPLICATION NUMBER: PILING DATE: 06-JUL-1993
ATTORNER: RETER FILING DATE: 06-JUL-1993
ATTORNER: RETER FILING DATE: 06-JUL-1993
ATTORNER: Kitts, Monica Chin
REGISTRATION NUMBER: P638-4017
TELECOMMUNICATION INPORMATION:
TELECOMMUNICATION INPORMATION:
TELECOMMUNICATION INPORMATION:
TELECOMMUNICATION INPORMATION:
TELECOMMUNICATION FOR S89-5000
TELEPRORE: (202) 638-5000
TELEPRORE: (202) 638-4010
SEQUENCE CHARACTERISTICS:
TENGTH 166 amino acids
US-06-256-204C-22
US-09-919-497-73
US-08-026-758-7
US-08-026-758-7
US-09-33-913B-84
US-09-34-002B-84
US-09-55-565C-84
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US-09-744-754C-38
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Sequence 1, Application_US/08026758

Sequence 1, Application_US/08026758

Patent No. 578021

APPLICANT: SOBEL, DOUGLAS O. TREATING AUTOIMMUNE

TITLE OF INVENTION: DISEASES USING ALPHA-INTERFERON AND/OR BETA-INTERFERON INMER OF SEQUENCES: 26

CORRESPONDENCE ADDRESS:

ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,

ADDRESSEE: P.C.

STREET: 1755 S. Jefferson Davis Highway, Suite 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 IQQTFNLFSTKDSSAAWDETLLDKFYTELYQQLNDLEACVIQEVGVEETPLMNVDSILAV 120
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Pred. No. 1.6e-86;
2; Mismatches 4.
                                                                                                                                                                                                                                                                                                                                   Sequence 34, Application US/09744754C

Batent No. 6685933
GENERAL INFORMATION:
TITLE OF INFORMATION:
TITLE OF INVENTION: Interferon Alpha Hybrids
FILE REFERENCE: 4239-56957
CURRENT FILING DATE: 2001-01-24
PRIOR APPLICATION NUMBER: US/09/744,754C
CURRENT FILING DATE: 2001-01-24
PRIOR APPLICATION NUMBER: US 60/094,407
PRIOR APPLICATION NUMBER: PCT/US99/15284
PRIOR APPLICATION NUMBER: PCT/US99/15284
PRIOR FILING DATE: 1999-07-06
NUMBER OF SEQ ID NOS: 42
SOFTWARE: Patentin version 3.2
SEQ ID NO 34
LENGTH: 166
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 96.4%;
Matches 160; Conservative
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STATE: Virginia
COUNTRY: U.S.A.
ZIP: 22202
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                         US-09-744-754C-34
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/note= "The one-letter code at position 124 appears to be a typographical error in Table 1 of the specification."
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55 appears to be a typographical error in Table 1 of the
specification."
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US-09-3139-913B-75
US-09-3139-913B-75
; Sequence 75, Application US/09319913B
; Patent No. 6303144
; GENERAL INFORMATION:
; APPLICANT: Patten, Phillip
; APPLICANT: Stemmer, Willem P.C.
; TITLE OF INVERTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
; TILE REFERENCE: 02-020503US
; CURRENT APPLICATION NUMBER: US/09/339, 913B
; CURRENT PILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: 08/769, 062
; PRIOR PILING DATE: 1994-02-17
; PRIOR PLING DATE: 1994-02-17
; PRIOR PLING DATE: 1994-02-17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match

93.8%; Score 808; DB 1; Length 189;
Best Local Similarity 94.6%; Pred. No. 1.3e-84;
Matches 157; Conservative 3; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
TOPOLOGY: unknown
MOLECTULE TYPE: protein
FEATURE:
NAME/KEY: Protein
LOCATION: 24..189
OTHER INFORMATION: /note= "IFN-alpha consensus"
FEATURE:
NAME/KEY: Modified-site
LOCATION: 55
OTHER INFORMATION: /note= "The one-letter code at in other Information: 55 appears to be a typographical output Information: specification."
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/026,758
FILING DATE: 19930305
CLASSIPICATION: 424
                                                                                                                                                                                                                                                                                                             1126-096-0
                                                                                                                                                                                                                ACTORNEY/AGENT INFORMATION:
NAME: Oblon, No. 5780021man F.
REGISTRATION NUMBER: 24,618
REGISTRATION NUMBER: 1126-09(
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 413-3000
TELERA: 24885 OPAT UR
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: Modified-site LOCATION: 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 189 amino acids
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OTHER INFORMATION:
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GENERAL INFORMATION:

APPLICANT: Patten, Phillip

APPLICANT: Steamer, Willem P.C.

TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING

FILE REFERENCE: 02-02050205

FILE REFERENCE: 02-02050205

FILE REPERENCE: 02-02050205

FILE REPERENCE: 06-06-04

FILE OF INTERNITY APPLICATION NUMBER: 08/769,062

PRIOR PILING DATE: 1999-10-18

PRIOR PILING DATE: 1999-12-17

PRIOR APPLICATION NUMBER: 08/198,431

PRIOR APPLICATION NUMBER: 08/198,431

PRIOR APPLICATION NUMBER: 08/15,684

PRIOR PILING DATE: 1995-04-18

PRIOR PILING DATE: 1995-04-18

PRIOR PILING DATE: 1995-10-30

NUMBER OF SEQ ID NOS: 101

SOFTWARE: PATCHIN VEY: 2.0
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                        Sequence 75, Application US/08769062B
Batent No. 6335160
GENERAL INFORMATION:
APPLICANT: Patten, Phillip
APPLICANT: Stemmer, Willem P.C.
TILLS OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING FILE REFERENCE: 02-020500US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CDLPQTHSLGNRRALILLAQMGRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHBM
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Pred. No. 1.5e-84;
5; Mismatches 5;
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                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/08/769,062B
CURRENT FILING DATE: 1996-12-18
PRIOR APPLICATION NUMBER: 08198,431
PRIOR FILING DATE: 1994-02-17
PRIOR PILING DATE: 1995-04-18
PRIOR PILING DATE: 1995-04-18
PRIOR PILING DATE: 1995-04-18
PRIOR PILING DATE: 1995-10-30
NUMBER OF SEQ ID NOS: 101
SOFTWARE: Patentin Ver: 2.0
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ORGANISM: consensus alpha interferon
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Best Local Similarity 94.0%;
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Best Local Similarity
       JS-08-769-062B-75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-769-062B-75
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                                                                                                                                                                                                                                                                                                                                                                                                         1 CDLPÓTHSLGNRRALILLAQMGRISPFSCLKDRHDFGFPQEEFDGNOFQKAQAISVLHEM 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CDLPQTHSLGNRRALILLAQMGRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Patten, Phillip
APPLICANT: Stemmer, Willem P.C.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILE REFERENCE: 02-02050408
CURRENT APPLICATION NUMBER: US/09/339,904A
CURRENT FILING DATE: 1999-06-24
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                                                                                                                                                                                                                                                                                                                 5; Indels
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                                                                                                                                                                                                                                                               Score 807; DB 2;
Pred. No. 1.5e-84;
5; Mismatches 5
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94.0%; Pred. No. 1.5e-84;
ive 5; Mismatches 5
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PRIOR APPLICATION NUMBER: 08/769,062
PRIOR PILING DATE: 1996-12-18
PRIOR PILING DATE: 1996-12-18
PRIOR PILING DATE: 1994-02-17
PRIOR FILING DATE: 1994-02-17
PRIOR PILING DATE: 1995-04-18
PRIOR PILING DATE: 1995-04-18
PRIOR PILING DATE: 1995-10-30
NUMBER OF SEQ ID NOS: 101
SOFTWARE: PATENTIN Ver: 2.0
                                                                                                                                                             ; TYPE: PRT
; ORGANISM: consensus alpha interferon
US-09-339-913B-75
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US-09-339-904A-75
PRIOR FILING DATE: 1995-04-18
PRIOR APPLICATION NUMBER: 08/537,874
PRIOR FILING DATE: 1995-10-30
NUMBER OF SEQ ID NOS: 101
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 75
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Patent No. 6319713
                                                                                                                                                                                                                                                               93.7%;
94.0%;
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Best Local Similarity 94.09
Matches 156; Conservative
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Best Local Similarity 94.0<sup>1</sup>
Matches 156; Conservative
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ORGANISM: 0
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2 CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQGEFPGGRQPQRQQAISVLHEM 61

RESULT

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US-09-559-671A-75
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Sequence 75, Application US/09693350
Sequence 75, Application US/09693350
Sequence 75, Application US/09693350
SERENT OF THE SET OF THE SET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Patten, Phillip
APPLICANT: Stemmer, Willem P.C.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILE REFERENCE: 02-020506US
CURRENT APPLICATION NUMBER: US/09/559,565C
URRENT FILING DATE: 2000-04-27
NUMBER OF SEG ID NOS: 101
SOPTWARE: Petentin Ver. 2.0
SEG ID NO 75
CDLPQTHSLGNRRALILLAQMGRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM
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93.7%; Score 807; DB 2; Length 166;
Best Local Similarity 94.0%; Pred. No. 1.5e-84;
Matches 156; Conservative 5; Mismatches 5; Indels
                                                                                                                                                                                                                                                                               122 KKYFORITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLOERLRRKE 167
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: PRT
; ORGANISM: consensus alpha interferon
US-09-559-565C-75
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SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 75
LENGTH: 166
TYPE: PRT
ORGANISM: CONSENSUS alpha int
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62 IQQTENLESTKOSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLANVDSILAV 121
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                                                                                                                          61 IQQTFNILFSTKOSSAAWEQSLLEKFSTELYQQLNDLEACVIQEVGVEETPLANEDSILAV 120
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61
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Fatent No. 6586182
GENERAL INFORMATION:
APPLICANT: Patenn, Phillip
APPLICANT: Stemmer, Willem P.C.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING FILE REPERENCE: 02-020509US
CURRENT APPLICATION NUMBER: US/09/693,389
CURRENT PILING DATE: 2000-10-20
PRIOR FILING DATE: 1996-12-18
NUMBER OF SEQ ID NOS: 101
SOFTWARE: Patentin Ver. 2.0
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APPLICANT: Stemmer, Willem P.C.
APPLICANT: Stemmer, Willem P.C.
APPLICANT: Stemmer, Willem P.C.
TITLE OF INVENTION: WETHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILE REFERENCE: 02-020503US
CURRENT APPLICATION NUMBER: US/09/559,671A
CURRENT APPLICATION NUMBER: 08/769,062
PRIOR FILING DATE: 1996-12-18
PRIOR FILING DATE: 1994-02-17
PRIOR PLING DATE: 1994-02-17
PRIOR PLING DATE: 1994-02-17
PRIOR PLING DATE: 1995-04-18
PRIOR PLING DATE: 1995-04-18
PRIOR PLING DATE: 1995-10-30
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2 CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQBEFDGNQFQKAQAISVLHEM
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94.0%; Pred. No. 1.5e-84;
tive 5; Mismatches 5;
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; ORGANISM: consensus alpha interferon
US-09-693-389-75
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SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 75
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TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING FILE REFERENCE: 02-020500US
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Pred. No. 1.5e-84;
5; Mismatches 5
                                    FILE REFERENCE: 02-0200003;
CURRENT PEDLICATION NUMBER: US/09/954,692;
CURRENT FILING DATE: 2001-09-12;
PRIOR APPLICATION NUMBER: US/08/769,062
; PRIOR FILING DATE: 1996-12-18
PRIOR FILING DATE: 1995-04-18
FRIOR PILING DATE: 1995-04-18
; PRIOR PILING DATE: 1995-10-30
; NUMBER: OF SEQ ID NOS: 101
; SEQ ID NO 75
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 49
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; ORGANISM: consensus alpha interferon
US-09-954-692-75
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94.0%;
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Best Local Similarity 94.0%;
Matches 157; Conservative
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Best Local Similarity 94.0%
Matches 156; Conservative
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US-06-256-204C-49
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TYPE: PRT
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; Sequence 75, Application US/09339926A
; Patent No. 6653072
; GRENALI NO. 6653072
; GRENALI Stemmer, Willen P.C.
; APPLICANT: Patten, Phillip
; APPLICANT: Stemmer, Willen P.C.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
; FILE REFERENCE: 02-002601US
; CURRENT APPLICATION NUMBER: US/09/339,926A
; FRIOR APPLICATION NUMBER: 08/769,062
; PRIOR PILING DATE: 1996-12-18
; PRIOR PILING DATE: 1994-02-17
; PRIOR APPLICATION NUMBER: 08/425,684
; PRIOR FILING DATE: 1995-04-18
; PRIOR FILING DATE: 1995-10-30
; NUMBER OF SEQ ID NOS: 101
; SOFTWARE: PATENTIN VET. 2.0
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                                                                                                               Query Match 93.7%; Score 807; DB 2; Length 166; Best Local Similarity 94.0%; Pred. No. 1.5e-84; Matches 156; Conservative 5; Mismatches 5; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 93.7%; Score 807; DB 2; Length 166; Best Local Similarity 94.0%; Pred. No. 1.5e-84; Matches 156; Conservative 5; Mismatches 5; Indels
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                          TYPE: PRT ORGANISM: consensus alpha interferon
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Patent No. 6946296
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APPLICANT: Patten, Phillip
APPLICANT: Stemmer, Willem P.C.
                                                                        US-09-559-671A-75
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       LENGTH: 166
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62 IQQTENLESTKDSSAAWDESLLEKRYTELYQQLNDLEACVIQEVGVEETPLANVDSILAV 121
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Pred. No. 3.3e-84;
3; Mismatches 7; Indels
Length 166;
                                                        5; Indels
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Patent No. 6610830
GENERAL INPORMATION:
APPLICANT: Goeddel, David V.
APPLICANT: Goeddel, Bavid V.
TITLE OF INVENTION: MICROBIAL PRODUCTION OF MATURE HUMAN
TITLE OF INVENTION: LEUROCYTE INTERFERONS
FILE REFERENCE: 1803-0025-999
CURRENT APPLICATION NUMBER: US/06/256,204C
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US-09-206-935-11

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OS-09-206-935-11
Sequence 11, Application US/09206935
Patent No. 629877
GENERAL INFORMATION:
APPLICANT: Gedowski, Paul
APPLICANT: Gedowski, Paul
APPLICANT: Wood, William I.
APPLICANT: Lang, Dong-Xiao
TITLE OF INVENTION: NOVEL TYPE I INTERFERONS
FILE REFERENCE: 11669.50US05
CURRENT PPLICATION NUMBER: US/09/206,935
CURRENT PILING DATE: 1998-12-07
EARLIER PILING DATE: 1998-12-07
SEALLIER PILING DATE: 1998-12-07
SEALLIER PILING DATE: 1998-16-04
NUMBER OF SEQ ID NOS: 24
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 11
LENGTH: 189
TYPE: PRT
ORCANISM: Homo sapiens
US-09-206-935-11
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Search completed: September 1, 2006, 13:28:53 Job time : 50 secs

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US-10-928-956A-2
; Sequence 2, Application US/10928956A
; Publication US-10-9685A1
; GENERAL INFORMATION:
; APPLICANT: Wei, Guangwen
; TITLE OF INVENTION Recombinant Super-Compound Interferon
; FILE REFERENCE: 792-C-US
; CURRENT APPLICATION NUMBER: US/10/928,956A
                                                                     1, 2006, 13:28:14; Search time 175 Seconds (without alignments) 442.039 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                 Published Applications AA Main:*

1. /EWC Celerra_SIDS3/ptodata/2/pubpaa/US07_PUBCOMB.pep:*

2. /EMC Celerra_SIDS3/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

3. /EMC Celerra_SIDS3/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

3. /EMC Celerra_SIDS3/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*

3. /EMC Celerra_SIDS3/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

5. /EMC Celerra_SIDS3/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
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US-10-714-817-43
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                                                                                                                                                                                                            2097797 segs, 463214858 residues
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GenCore version (c) 1993 - 2006
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Maximum Match 100%
Listing first 45 summaries
                                              - protein search, using sw model
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Gapop 10.0 , Gapext 0.5
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seq length: 200000000
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NUMBER OF SEQ ID NOS: 90
SOFTWARES FastSEQ for Windows Version 4.0
SEQ ID NO 58
LENGTH: 167
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Publication No. US20050266465A1
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Sequence 2, Application US/10928474A

Publication No. US20050208019A1

GENERAL INFORMATION:

APPLICANT: Wel, Guangwen

TITLE OF INVENTION: USES OF INTERFERONS WITH ALTERED SPATIAL STRUCTURE

FILE REFRENCE: 795-A-US

CURRENT APPLICATION NUMBER: US/10/928,474A

CURRENT FILING DATE: 2004-08-26

FRIOR PELLING DATE: 2003-08-28

FRIOR PELLING DATE: 2003-08-28

FRIOR PILING DATE: 2004-03-05

FRIOR PILING DATE: 2004-03-05

NUMBER OF SEQ ID NOS: 13

SOFTWARE: Patentin version 3.3

SEQ ID NO 2

LENGTH: 167
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Best Local Similarity 100.0%; Score 861; DB 5; Length 167;
Best Local Similarity 100.0%; Pred. No. 2.6e-81;
Matches 167; Conservative 0; Mismatches 0: Indela
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Pred. No. 2.6e-81;
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PRIOR APPLICATION NUMBER: 60/498,449
PRIOR FILING DATE: 2003-08-26
PRIOR FILING DATE: 2003-08-28
PRIOR APPLICATION NUMBER: 280/MUM/2004
PRIOR APPLICATION NUMBER: 280/MUM/2004
PRIOR PILING DATE: 2004-03-05
NUMBER OF SEQ ID NOS: 13
SOFWARE: Patentin version 3.3
SEQ ID NO 2
LENGTH: 167
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US-10-928-956A-2
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Best Local Similarity 100.0%;
Matches 167; Conservative 0
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publication US/11077813A

gequence 2, Application US/11077813A

publication No. US20660035327A1

general INFORMATION:

APPLICANT: Wei, Guangwen

TITLE OF INVENTION: RECOMBINANT SUPER-COMPOUND INTERFERON AND USES THEREOF

FILE REPERENCE: 1005-A-05

CURRENT APPLICATION NUMBER: US/11/077,813A

CURRENT PILING DATE: 2002-03-10

PRIOR APPLICATION NUMBER: PCT/CN02/00128

PRIOR APPLICATION NUMBER: 60/659925

PRIOR APPLICATION NUMBER: 60/498,449

PRIOR FILING DATE: 2004-08-26

PRIOR PILING DATE: 2004-08-26

PRIOR PLING DATE: 2003-08-28

PRIOR FILING DATE: 2003-08-28
61 MIQQTFNLFSTKDSSAAMDESLLEKFYTELYQQLNDLEACVIQEVGVEBTFLMNVDSILA 120
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APPLICANT: Patten, Phillip A., et al.
TITLE OF INVENTION: INTERFERON-ALPHA POLYPEPTIDES AND TITLE OF INVENTION: CONJUGATES
FILE REFERENCE: 0280.3100S
CURRENT APPLICATION NUMBER: US/11/132,722
CURRENT FILING DATE: 2005-05-18
PRIOR APPLICATION NUMBER: US 60/572,504
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Best Local Similarity 100.0%; Pred. No. 2.6e-81; Matches 167; Conservative 0; Mismatches 0;
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; Sequence 43, Application US/10714817
; Publication No. US20040219131A1
; GENERAL INFORMATION:
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US-10-714-817-43
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APPLICANT: Wei, Guangwen
APPLICANT: Wei, Guangwen
APPLICANT: Wei, Guangwen
APPLICANT: Wei, Guangwen
TITLE OF INVENTION: RECOMBINANT SUPER-COMPOUND INTERPERON AND USES THEREOF
FILE REPRENCE: 1005-A-US
CURRENT PILING DATE: 2005-03-10
PRIOR APPLICATION NUMBER: 00(559925
PRIOR APPLICATION NUMBER: 00(659925
PRIOR APPLICATION NUMBER: 00(499, 449
PRIOR PILING DATE: 2003-09-28
PRIOR PELING DATE: 2003-09-28
PRIOR PELING DATE: 2003-09-28
PRIOR PILING DATE: 2004-03-05
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PRIOR APPLICATION NUMBER: CN 01104367.9
PRIOR FILING DATE: 2001-02-28
PRIOR FILING DATE: 279/MUM/2004
PRIOR FILING DATE: 2004-03-05
PRIOR APPLICATION NUMBER: 280/MUM/2004
PRIOR PILING DATE: 2004-03-05
Remaining Prior Application data removed - See File Wrapper or PALM: NUMBER OF SEQ ID NOS: 16
SOFTWARE: Patentin version 3.2
SEQ ID NO 2.
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100.0%; Score 861; DB 6; Length 167;
Best Local Similarity 100.0%; Pred. No. 2.6e-81;
Matches 167; Conservative 0; Mismatches 0; Indels
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Sequence 15, Application US/11077813A
Publication No. US20060035327A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: human synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: human synthesis
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61 MIQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLMVVDSILA 120
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APPLICANT: Cho, Ho S
APPLICANT: Daniel, Thomas
APPLICANT: Daniel, Thomas
APPLICANT: Hays, Anna-Maria
APPLICANT: Wilson, Troy
TITLE OP INVENTION: Modified Human Interferon Polypeptides and Their Uses
FILE REFERENCE: AMER-030.000US
CURRENT APPLICATION NUBBER: US/11/046,440
CURRENT FILING DATE: 2005-01-28
                                                                   1 MCDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHE
                                                                                                              1 MCDLPQTHSLGNRRALILLAQMRRISPPSCLKDRHDFGFPQEBFDGNQFQKAQAISVLHB
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TITLE OF INVENTION: Interferon-Alpha Polypeptides and Conjugates
FILE REFERENCE: 026948310
CURRENT APPLICATION NUMBER: US/10/714,817
FRICA APPLICATION NUMBER: US 60/502,560
PRIOR PLICATION NUMBER: US 60/502,560
PRIOR FILING DATE: 2003-09-12
PRIOR PLING DATE: 2003-09-12
PRIOR PLING DATE: 2002-11-18
NUMBER OF SEQ ID NOS: 104
SOFTWARE: FastSEQ for Windows Version 4.0
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Indels
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PRIOR FILING DATE: 2004-02-02
PRIOR APPLICATION NUMBER: 60/581,314
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US-11-1/0-830-434

Sequence 312, Application US/11176830

Publication No. US20060020116A1

GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Guyon, Thierry

APPLICANT: Orittanti, Lila
APPLICANT: Drittanti, Lila
APPLICANT: Pritanti, Lila
APPLICANT: Pritanti, Lila
APPLICANT: Drittanti, Lila
APPLICANTON: Rational Evolution of Cytokines for Higher Stability, Encoding Ni
ITLE OF INVENTION: Acid Molecules and Related Applications
ITLE OF INVENTION: Acid Molecules
CURRENT APPLICATION NUMBER: 105/10/176,830

CURRENT APPLICATION NUMBER: 106/55,334

PRIOR FILING DATE: 2003-09-08

PRIOR PILING DATE: 2003-09-09

NUMBER OF SEQ ID NOS: 1306

SOFTWARE: PastSEQ for Windows Version 4.0

SEQ ID NO 232

HENCH! 165
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122 KKYPQRITLYLTEKKYSPCAWEVVRABIMRSFSLSTNLQERLRRKE 167
                                                120 KKYFQRITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLQERLRRKE 165
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TITLE OF INVENTION: Interferon Alpha Hybrids
FILE REFERENCE: 4239-56957
CURRENT APPLICATION NUMBER: US/10/615,723
CURRENT FILING DATE: 2003-07-08
FRIOR PRICATION NUMBER: US/09/744,754C
PRIOR FILING DATE: 2001-01-24
PRIOR FILING DATE: 1998-07-28
FRIOR FILING DATE: 1998-07-06
NUMBER OF SEQ ID NOS: 42
SOFTWARE: PARCHING DATE: 1999-07-06
NUMBER OF SEQ ID NOS: 42
SOFTWARE: PARCHIN VERSION 3.2
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; Sequence 34. Application US/10615723
; Publication No. US20040018172A1
; GENERAL INFORMATION:
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Matches 165; Conservative
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Sequence 232, Application US/10658834A

Publication No. US20040132977A1

SEQUENCE 232, Application US/10658834A

SEQUENCE 232, Application No. US20040132977A1

SEQUENCE 232, Application

APPLICANT: Gantier, Rene

APPLICANT: Drittanti, Lila

APPLICANT: Wega, Manuel

TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding Nu

TITLE OF INVENTION: Acid

TITLE OF INVENTION: Molecules and Related Applications

FILE REPERENCE: 38751-922

CURRENT PLILING DATE: 2003-09-08

PRIOR APPLICATION NUMBER: 60/457,135

PRIOR APPLICATION NUMBER: 60/457,135

PRIOR APPLICATION NUMBER: 60/457,135

PRIOR APPLICATION NUMBER: 60/457,135

PRIOR PILING DATE: 2002-09-09

NUMBER OF SEQ ID NOS: 1306

SEQ ID NO 232

LENGTH: 165
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 166;
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99.4%; Score 856; DB 6; I
Best Local Similarity 100.0%; Pred. No. 8.6e-81;
Matches 166; Conservative 0; Mismatches n.
                   PRIOR APPLICATION NUMBER: 60/581,175
PRIOR FILING DATE: 2004-06-18
PRIOR APPLICATION NUMBER: 60/580,885
PRIOR PILING DATE: 2004-06-18
PRIOR PILING DATE: 2004-12-22
NUMBER OF SEQ ID NOS: 27
SOFTWARE: Patentin version 3.3
SEQ ID NO 25
LENGTH: 166
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ORGANISM: Artificial Sequence
PRIOR FILING DATE: 2004-06-18
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RESULT 14
US-10-389-674-41
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                                                                                                           Query Match 95.7%; Score 824; DB 4; Length 166; Best Local Similarity 96.4%; Pred. No. 1.8e-77; Matches 160; Conservative 2; Mismatches 4; Indels
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APPLICANT: PATTEN, PHILIP A.
TITLE OF INVENTION: IFN-ALPHA HOMOLOGUES
FILE REFERENCE: 02-101510/0140.002
CURRENT APPLICATION NUMBER: US/10/389,674
CURRENT FILING DATE: 2003-03-14
FRIOR APPLICATION NUMBER: US/09/685,189
PRIOR PILING DATE: 2000-10-06
PRIOR PILING DATE: 1999-10-07
NUMBER OF SEQ ID NOS: 88
SOFTWARE: PATENT NOS: 88
SOFTWARE: PATENT NET: 166
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US-10-389-674-61
; Sequence 61, Application US/10389674
; Publication No. US20040002474A1
; GENERAL INFORMATION:
; APPLICANT: HEINRICHS, VOLKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 50, Application US/10389674
Publication No. US20040002474A1
GENERAL INFORMATION:
APPLICANT: HEINRICHS, VOLKER
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                 FEATURE:
COTHER INFORMATION: Gene Fusion
US-10-615-723-34
ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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US-10-389-674-50
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OTHER INFORMATION: Description of Artificial Sequence: Synthetic amino acid
FRATURE:
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93.8%; Score 808; DB 4; Length 166;
Best Local Similarity 94.0%; Pred. No. 8.5e-76;
Matches 156; Conservative 6; Mismatches 4; Indels
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PUDLICATION NO. US200400024741

GENERAL INFORMATION:
APPLICANT: HEINRICHS, VOLKER
APPLICANT: CHEN, TEDDY
APPLICANT: PATTEN, PHILLIP A.
TITLE OF INVENTION: IFN-ALPHA HOMOLOGUES
TITLE OF INVENTION: IFN-ALPHA HOMOLOGUES
CURRENT APPLICATION NUMBER: US/10/389,674
CURRENT FILING DATE: 2003-03-14
PRIOR APPLICATION NUMBER: US/10/685,189
PRIOR FILING DATE: 2000-10-06
PRIOR PLING DATE: 1999-10-07
PRIOR FILING DATE: 1999-10-07
NUMBER OF SEQ ID NOS: 88
SOFTWARE: PATENTIN Ver. 2.0
APPLICANT: CHEN, TEDDY
APPLICANT: PATTEN, PHILLIP A.
TITLE OF INVENTION: IFN-ALPHA HOMOLOGUES
TITLE OF INVENTION: IFN-ALPHA HOMOLOGUES
CURRENT PLIA BAPELS 2003-03-14
CURRENT FLIMG DATE: 2003-03-14
PRIOR APPLICATION NUMBER: US/09/685,189
PRIOR PELING DATE: 2000-10-06
PRIOR PELING DATE: 1999-10-07
PRIOR PELING DATE: 1999-10-07
NUMBER OF SEQ ID NOS: 88
SOFTWARE: PATCHIN VOR: 2.0
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US-10-389-674-41
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US-10-389-674-61
                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial Sequence
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TYPE: PRT
ORGANISM: Artificial Sequence
PEATURE:
THER INFORMATION: Description of Artificial Sequence: Synthetic amino acid
FRATURE:
TRATURE:
TOTHER INFORMATION: Clone ID 2D9
US-10-389-674-64
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1 CDLPQTHSLGNRRALMLLAQMGRISPFSCLKDRYDFGFPQEEFDGNQFQKAQAISVLHEM 60
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                                                                                                                                                                                                                                                                                                                               US-10-189-50-44-64, Application US/10389674
| Publication No. US20040002474A1
| GENERAL INFORMATION:
| APPLICANT: HEINRICHS, VOLKER
| APPLICANT: HEINRICHS, VOLKER
| APPLICANT: HEINRICHS, VOLKER
| APPLICANT: FATTEN, PHILLIP A.
| TILLE OF INVENTION: IFN-ALPHA HOMOLOGUES
| FILE REFERENCE: 02-101510/0140.002
| CURRENT APPLICATION NUMBER: US/10/389,674
| CURRENT APPLICATION NUMBER: US/09/685,189
| PRIOR APPLICATION NUMBER: 09/415,183
| PRIOR PILING DATE: 1999-10-07
| NUMBER OF SEQ ID NOS: 88
| SOFTHARE: PATENTIN VET: 2.0
| SEQ ID NO 64
| LENGTHS: 166
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. Search completed: September 1, 2006, 13:31:53 Job time : 176 secs

November 2005

Published_Applications Nucleic Acid and Published_Applications Amino Acid database searches now generate two sets of results each. The Published_Applications databases have been split into two parts to reduce the amount of time required for their daily updates. This results in more machine time being available for processing searches.

Mewly published applications will appear in the Published_Applications_New databases: older published applications make up the Published_Applications_New databases.

Searches run against Nucleic Acid Published_Applications produce two sets of results, with the extensions and .rnpbn (Published_Applications_NA_New).

Searches run against Amino Acid Published_Applications produce two sets of results, with the extensions arraphm (Published_Applications_AA_New).

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GenCore version 5.1.9 (c) 1993 - 2006 Biocceleration Ltd.
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US-11-36-115-75

US-11-330-917-194

US-11-330-917-194

US-11-330-917-190

US-11-330-917-190

US-11-330-917-190

US-11-330-917-191

US-11-330-917-191

US-11-330-917-191

US-11-330-917-193

US-11-136-115-77

US-11-136-115-85

US-11-136-115-81

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US-11-330-917-80
US-11-330-917-21
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Sequence 39, Appl Sequence 79, Appl Sequence 137, Appl Sequence 1137, Appl Sequence 117, Appl Sequence 110, Appl Sequence 110, Appl Sequence 110, Appl Sequence 110, Appl Sequence 14, Appl Sequence 14, Appl Sequence 14, Appl Sequence 14, Appl Sequence 15, Appl Sequence 16, Appl Sequence 17, Appl Sequence 17, Appl Sequence 18, Appl	Desce-R Ueing	97.5%; Scote 839.5; DB 7; Length 165; imilarity 99.4%; Pred. No. 1.2e-74; ; Conservative 0; Mismatches 0; Indels 1; Gaps 1; CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGPPQBRFDGNQFQKAQAISVLHEM 61
US-11-330-917-39 US-11-330-917-79 US-11-330-917-46 US-11-330-917-173 US-11-330-917-173 US-11-330-917-100 US-11-330-917-100 US-11-330-917-1100 US-11-330-917-1100 US-11-330-917-1100 US-11-330-917-1100 US-11-330-917-1100 US-11-036-257-81 US-11-036-257-81 US-11-036-257-87 US-11-036-257-87 US-11-036-257-87 US-11-036-257-87 US-11-036-257-87 US-11-036-257-87	ALIGNMENTS 330917 Hyperglycosylated, ulations and Metho (/11/330,917 11 00,202 00,134 04,280 04,415 Version 4.0	Score 839.5; DB 7 Pred. No. 1.2e-74; 0; Mismatches 0 AQMRRISPFSCLKDRHDFGF
86.8 165 7 7 86.8 86.8 165 7 86.8 86.8 165 7 7 86.8 165 7 7 86.8 165 7 7 86.8 165 7 7 86.8 192 6 7 86.8 192 6 7 86.8 200 7 86.8 200 7 86.8 230 7 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 86.8 86.8 230 7 7 86.8 86.8 230 7 7 86.8 86.8 230 7 7 86.8 86.8 230 7 7 86.8 86.8 230 7 7 86.8 86.8 230 7 7 86.8 86.8 230 7 7 86.8 86.8 230 7 7 86.8 86.8 230 7 7 86.8 86.8 86.8 86.8 86.8 86.8 86.8	ALIGNWE SULT 1 -11-330-917-232 Sequence 232, Application US/11330917 Publication No. US2006018271641 GENERAL INFORMATION: APPLICANT: Hong, Jin APPLICANT: Batt, Lawrence M. TITLE OF INVENTION: Synthetic Hyperglyco TITLE OF INVENTION: Oral Formulations a FILE REFERENCS: INTW-06000 CURRENT APPLICATION NUMBER: US/11/330,91 CURRENT APPLICATION NUMBER: US/11/330,91 PRIOR PILING DATE: 2004-08-09 PRIOR FILING DATE: 2004-08-09 PRIOR FILING DATE: 2004-08-09 PRIOR FILING DATE: 2004-08-29 PRIOR PRILING DATE: 2004-08-24 PRIOR APPLICATION NUMBER: 60/600,134 PRIOR PRILING DATE: 2004-08-24 PRIOR APPLICATION NUMBER: 60/604,415 PRIOR APPLICATION NUMBER: 60/604,616 PRIOR APPLICATION NUMB	97.5%; Similarity 99.4%; 5; Conservative CDLPQTHSLGNRRALILL
26 7499.5 28 7449.5 29 7449.5 30 7448.5 31 7447.5 31 7447.5 31 7447.5 31 7447.5 31 7447.5 41 7447.5 44 747.5 45	HESULT 1 US-11-330-917-232 Sequence 232, Applicat Sequence 232, Applicat Bublication No. US2006 GENERAL INFORMATION: APPLICANT: Belatt, Last TITLE OF INVENTION: FILE REPERENCE: INTW- CURRENT APPLICATION NUM PRIOR PILING DATE: 20 SOFTWARE: FRESEG FOR SOFTWARE: PRESEG FOR SOFTWARE: PRESEG FOR CONGANISM: Artificial PRATURE: ORGANISM: Artificial PRATURE: US-11-330-917-232	Query Match Best Local Sim Matches 165; Oy 2 CD

IQQTFNLFSTKDSSAAWDESLLEKFYTELYQQLANDLEACVIQEVGVEETPLANVDSILAV 121 60 IQQTFNLPSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVEETPLAMVDSILAV 119

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KKYPORITLYLTEKKYSPCAWEVVRABIMRSPSLSTNLOERLRRKE

CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFG-PQBBFDGNQFQKAQAISVLHEM

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62 IQQTFNLPSTKDSSAAWDESLLEKFYTELYQQLNDLEACVIQEVGVBETPLANVDSILAV 121
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APPLICANT: Stemmer, Willem P.C.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
                                                                                                                                                                         1 CDLPQTHSLSNRRTLMIMAQMGRISPFSCLKORHDFGFPQEEFPGNGFQKAQAISVLHEM
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                                                                                                                                               2 CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEBFDGNQFQKAQAISVLHEM
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                                                                                                                                                                                                                                                                                                                                                                              93.0%; Score 801; DB 7; Length 166; 94.6%; Pred. No. 6.8e-71; tive 2; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   122 KKYPQRITLYLTEKKYSPCAWEVVRABIMRSFSLSTNLOERLRRKE 167
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                                         Score 801; DB 7;
Pred. No. 6.8e-71;
                                                                                              9; Mismatches
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Publication No. US20060166225A1
GENERAL INFORMATION:
                                         Query Match 93.0%;
Best Local Similarity 91.0%;
Matches 151; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US20060182716A1
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Best Local Similarity 94.61
Matches 157; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
US-11-330-917-194
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GENERAL INFORMATION
US-11-330-917-187
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Sequence 187 Application US/11330917
Publication No. US20060182716A1
GENERAL INFORMATION:
APPLICANT: Selwert, Scott D.
APPLICANT: Blatt, Lawrence M.
TITLE OF INVENTION: Oral Formulations and Methods of Using the Same
TITLE OF INVENTION: Oral Formulations and Methods of Using the Same
FILE REFERENCE: INTM-060WO
CURRENT FILING DATE: 2006-01-11
PRIOR PILING DATE: 2006-08-09
PRIOR FILING DATE: 2004-08-09
PRIOR FILING DATE: 2004-08-09
PRIOR PLICATION NUMBER: 60/600,134
PRIOR FILING DATE: 2004-08-24
PRIOR PRILING DATE: 2004-08-24
PRIOR PRILING DATE: 2004-08-24
PRIOR FILING DATE: 2004-08-24
PRIOR FILING DATE: 2004-08-24
SPRIOR FILING DATE: 2004-08-24
PRIOR FILING DATE: 2004-08-24
SOFTWARE: FastSQ for Windows Version 4.0
SEQ ID NO 187
TYPE: PRT
TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: TYPE: T
                                                                                 61 IQQTFNLFSTXOSSAAWEQSLLEKFSTELYQQLNDLEACVIQEVGVEETPLMNEDSILAV 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ii ORGANISM: consensus alpha interferon
US-11-136-115-75
                    S-11-136-115-75
Sequence 75, Application US/11136115
Publication No. US20060166225A1
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GENERAL INFORMATION:
APPLICANT: Patten, Phillip
APPLICANT: Stemmer, Willem P.C.
TITLE OF INVENTION: WETHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILE REFERENCE: 02-0205010S
CURRENT APPLICATION NUMBER: US/11/136,115
CURRENT FILING DATE: 1999-06-24
PRIOR PELING DATE: 1999-06-24
PRIOR PELING DATE: 1999-06-24
PRIOR PELING DATE: 1999-06-24
PRIOR APPLICATION NUMBER: 08/769,062
PRIOR PELING DATE: 1994-02-17
PRIOR APPLICATION NUMBER: 08/198,431
PRIOR PELING DATE: 1994-02-17
PRIOR PELING DATE: 1995-04-18
PRIOR PILING DATE: 1995-04-18
PRIOR PILING DATE: 1995-04-18
PRIOR PILING DATE: 1995-04-18
PRIOR PILING DATE: 1995-10-30
NUMBER OF SEQ ID NOS: 101
SOFTWARE: Patentin Ver: 2.0
SEQ ID NO 79
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92.1%; Score 793; DB 7; Length 166;
Best Local Similarity 93.9%; Pred. No. 4.1e-70;
Matches 155; Conservative 3; Mismatches 7; Indels
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CURRENT APPLICATION NUMBER: US/11/136,115
CURRENT APPLICATION NUMBER: US/09/339,926
PRIOR APPLICATION NUMBER: US/09/339,926
PRIOR FILING DATE: 1999-06-24
PRIOR FILING DATE: 1999-06-24
PRIOR FILING DATE: 1996-12-18
PRIOR PLING DATE: 1996-12-18
PRIOR PLING DATE: 1996-02-17
PRIOR PLING DATE: 1996-02-17
PRIOR APPLICATION NUMBER: 08/125,684
PRIOR PLING DATE: 1995-04-18
PRIOR PLING DATE: 1995-04-18
PRIOR PLING DATE: 1995-10-30
NUMBER OF SEQ ID NOS: 101
SOFTWARE: PARCHIN VET: 2.0
SOFTWARE: PARCHIN VET: 2.0
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Publication No. US20060166225A1
GENERAL INFORMATION:
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; ORGANISM: human alpha interferon
US-11-136-115-84
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; ORGANISM: human alpha interferon
US-11-136-115-79
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2 CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEFFDGNQFQKAQAISVLHEM 61

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Sequence 190, Application US/11330917

Sequence 190, Application US/11330917

Publication No. US20060182716A1

GENERAL INFORMATION:

APPLICANT: Hong, Jin

APPLICANT: Blatt, Lawrence M.

TITLE OF INVENTION: Synthetic Hyperglycosylated, Protease-Resistant Polypeptide Variation Interpretation Numbers: US11/330,917

TITLE OF INVENTION: Synthetic Hyperglycosylated, Protease-Resistant Polypeptide Variation INTERMING DATE: 2006-01-11

PRIOR PAPLICATION NUMBER: 60/600,202

PRIOR PILING DATE: 2004-08-09

PRIOR PILING DATE: 2004-08-04

SEQ ID NOS: 1354

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**NUMBER OF SEQ ID NOS: 1354

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Publication No. US20060182716A1
Publication No. US20060182716A1
Publication No. US20060182716A1
Publication No. US20060182716A1
APPLICANT: Hong, Jin
APPLICANT: Selwart, Scott D.
APPLICANT: Blatt, Lawrence M.
TITLE OF INVENTION: Synthetic Hyperglycosylated, Protease-Resistant Polypeptide Varia
TITLE OF INVENTION: Synthetic Hyperglycosylated, Protease-Resistant Polypeptide Varia
TITLE OF INVENTION: UNMBER: US/11/330,917
CURRENT FILING DATE: 2006-01-11
PRIOR PELICATION NUMBER: 60/600,202
PRIOR PILING DATE: 2004-08-09
PRIOR PLING DATE: 2004-08-09
PRIOR APPLICATION NUMBER: 60/600,134
                                                                                                 61 IQQTFNLFSTEDSSAAWEQSLLEKFSTELYQQLNDLEACV1QEVGVERTPLANVDSILAV 120
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1 CDLPQTHSLGNRRALILLAQMGRISHPSCLKDRHDFGPPEEEFDGHQFQKTQAISVLHEM 60
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Best Local Similarity 91.6'
Matches 152; Conservative
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US-11-330-917-190
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us-10-650-365a-2.rapbn

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121 RKYPQRITLYLTEKKYSPCAWEVVRABIMRSLSFSTNLQKRLRRKD 166
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 183
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US-11-330-917-191
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                                                                                                      US-11-330-917-191
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APPLICANT: Patten, Phillip
APPLICANT: Patten, Phillip
APPLICANT: Patten, Willem P.C.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILE REFERENCE: 02-020501US
CURRENT APPLICATION WUMBER: US/11/136,115
CURRENT FILING DATE: 1999-06-24
PRIOR APPLICATION NUMBER: US/09/339,926
PRIOR APPLICATION NUMBER: US/09/339,926
PRIOR APPLICATION NUMBER: US/09/339,926
PRIOR APPLICATION NUMBER: 08/759,062
PRIOR APPLICATION NUMBER: 08/759,062
PRIOR PILING DATE: 1995-04-18
PRIOR FILING DATE: 1995-04-18
PRIOR FILING DATE: 1995-04-18
PRIOR FILING DATE: 1995-04-18
PRIOR FILING DATE: 1995-04-18
PRIOR PRIOR APPLICATION NUMBER: 08/537,874
PRIOR FILING DATE: 1995-04-18
SEQ ID NOS: 101
SEQ ID NO SEQ ID NOS: 101
SEQ ID NO 76
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                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CDLPQTHSLGNRRALILLAQMGRISHFSCLKDRHDFGFPEEFDGHQFQKAQAISVLHEM 60
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                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 166;
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                                                                                                                                                                                                                                                                                                                      DB 7; Length 166
                                                                                                                                                                                                                                                                                                                                                                     6; Indels
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Pred. No. 7.6e-69;
                                                                                                                                                                                                                                                                                                                                               2e-69;
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PRIOR FILING DATE: 2004-08-09
PRIOR APPLICATION NUMBER: 60/604,280
PRIOR PILING DATE: 2004-08-24
PRIOR APPLICATION NUMBER: 60/604,415
PRIOR FILING DATE: 2004-08-24
NUMBER: PSEQ ID NOS: 1354
SEQ ID NO 189
LENGTH: 166
                                                                                                                                                                                                                                                                                                                   Score 786;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-11-136-115-76
; Sequence 76, Application US/11136115
; Publication No. US20060166225A1
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; ORGANISM: human alpha interferon
US-11-136-115-76
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Best Local Similarity 91.6%;
Matches 152; Conservative 8
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Best Local Similarity 90.4%;
Matches 150; Conservative
                                                                                                                                                                                                                         TYPE: PRT ORGANISM: Homo sapiens
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APPLICANT: Hong, Jin.
APPLICANT: Seiwert, Scott D.
APPLICANT: Seiwert, Scott D.
APPLICANT: Seiwert, Sawert, Scott D.
APPLICANT: Seiwert, Lawrence M.
TITLE OF INVENTION: Synthetic Hyperglycosylated, Protease-Resistant Polypeptide Varie
TITLE OF INVENTION: Oral Pormulations and Methods of Using the Same
FILE REFERENCE: INTM-060WO
CURRENT FILING DATE: 2006-01-11
PRIOR PLICATION NUMBER: 60/600,202
PRIOR FILING DATE: 2004-08-09
PRIOR PLILING DATE: 2004-08-09
PRIOR FILING DATE: 2004-08-09
PRIOR FILING DATE: 2004-08-24
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APPLICANT: Hong, Jin
APPLICANT: Hong, Jin
APPLICANT: Hong, Jin
APPLICANT: Blatt, Lawrence M.
APPLICANT: Blatt, Lawrence M.
APPLICANT: Blatt, Lawrence M.
TITLE OF INVENTION: Synthetic Hyperglycosylated, Protease-Resistant Polypeptide Vari;
TITLE OF INVENTION: Oral Formulations and Methods of Using the Same
FILE REPERENCE: INTM-060WO
CURRENT APPLICATION NUMBER: 06/600, 202
PRIOR APPLICATION NUMBER: 60/600, 134
PRIOR FILING DATE: 2004-08-09
PRIOR FILING DATE: 2004-08-24
PRIOR FILING DATE: 2004-08-24
PRIOR FILING DATE: 2004-08-24
PRIOR FILING DATE: 2004-08-24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 191
Sequence 191, Application US/11330917 Publication No. US20060182716A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/11330917
lo. US20060182716A1
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8; Mismatches
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ORGANISM: human alpha interferon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 89.2
Best Local Similarity 88.6
Matches 147; Conservative
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US-11-330-917-193
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APPLICANT: Stemmer, Willem P.C.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILLE REPERENCE: 02-020501US
CURRENT PILITE DATE: 2005-05-24
PRIOR RAPPLICATION NUMBER: US/11/136,115
PRIOR FILING DATE: 1999-06-24
PRIOR PILING DATE: 1999-06-24
PRIOR PILING DATE: 1996-12-18
PRIOR PILING DATE: 1994-02-17
PRIOR PILING DATE: 1994-02-17
PRIOR PILING DATE: 1995-04-18
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                                                                                                                                    Query Match 90.1%; Score 776; DB 7; Length 166; Best Local Similarity 90.4%; Pred. No. 1.9e-68; Matches 150; Conservative 7; Mismatches 9; Indels
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Publication No. US20060166225A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 89.2
Matches 148; Conservative
                                                     ORGANISM: Homo sapiens
                                                                                  US-11-330-917-183
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US-11-330-917-193
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LENGTH: 166
TYPE: PRT
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APPLICANT: Belwert, Scott D.
APPLICANT: Blatt, Lawrence M.
APPLICANT: Blatt, Lawrence M.
TITLE OF INVENTION: Synthetic Hyperglycosylated, Protease-Resistant Polypeptide Varia
TITLE OF INVENTION: Oral Formulations and Methods of Using the Same
TITLE OF INVENTION: Oral Formulations and Methods of Using the Same
TITLE OF INVENTION: Oral Formulations and Methods of Using the Same
CURRENT APPLICATION NUMBER: 06/600,202
PRIOR FILING DATE: 2004-08-09
PRIOR FILING DATE: 2004-08-09
PRIOR FILING DATE: 2004-08-09
PRIOR FILING DATE: 2004-08-24
PRIOR FILING DATE: 2004-08-24
NUMBER OF SEQ ID NOS: 1354
SEQ ID NO 193
SEQ ID NO 193
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Publication No. US2006016625A1

GENERAL INFORMATION:

APPLICANT: Patten, Phillip

APPLICANT: Stemmer, Willem P.C.

TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING

FILE REFERENCE: 02-0205010S

CURRENT APPLICATION NUMBER: US/11/136,115

CURRENT APPLICATION NUMBER: US/9/339,926

PRIOR FILING DATE: 1999-06-24

PRIOR FILING DATE: 1999-06-24

PRIOR FILING DATE: 1999-02-17

PRIOR FILING DATE: 1994-02-17

PRIOR FILING DATE: 1994-02-17

PRIOR FILING DATE: 1995-04-18

PRIOR FILING DATE: 1995-04-18

PRIOR FILING DATE: 1995-10-30

NUMBER OF SEQ ID NOS: 101

SOFTWARE: Patentin Ver. 2.0

LEMETHER OF SEQ ID NO 77

LEMETHER OF SECTION NOTES IN THE NOTE IN
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88.6%; Pred. No. 1.1e-67;
tive 10; Mismatches 9;
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Best Local Similarity 89.8
Matches 149; Conservative
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GENERAL INFORMATION:

APPLICANT: Patten, Phillip
APPLICANT: Stemmer, Willem P.C.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILE REFERENCE: 02-0250108
CURRENT APPLICATION NUMBER: US/11/136,115
CURRENT PILING DATE: 2005-05-24
PRIOR APPLICATION NUMBER: US/09/339,926
PRIOR PILING DATE: 1990-06-24
PRIOR PILING DATE: 1996-12-18
PRIOR PRELICATION NUMBER: 08/769,062
PRIOR PRILING DATE: 1996-12-17
PRIOR PRILING DATE: 1996-12-17
PRIOR PELING DATE: 1994-02-17
PRIOR PILING DATE: 1995-04-18
PRIOR PILING DATE: 1995-10-30
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                                                                                                                                                                                                                                                                             61 IQQTFNLFSTEDSSAAWEQSLLEKFSTELYQQLNNLEACVIQEVGMEETPLANEDSILAV 120
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CDLPQTHSLGNRRALILLAQMRRISPFSCLKDRHDFGFPQEEFDGNQFQKAQAISVLHEM 61
                                                           CDLPQTHSLGNRRALILLAQMGRISPFSCLKORPDFGLPQEEFDGNGFQKTQAISVLHEM 60
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                                                                                                                                                                                                                                                                                                                                                                       122 KKYFORITLYLTEKKYSPCAWEVVRAEIMRSFSLSTNLQERLRRKE 167
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ORGANISM: human alpha interferon
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Best Local Similarity 89.8
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